SOUTHERN TEXTILE BULLETIN

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Cost of Making 22s Yarn From Single and From Double Roving

By Dixie Weaver.

This article consists of two parts, the first is a yarn test, and the second was to make a machinery layout of a 10,000-spindle yarn mill making 22s warp from single and also from double roving at the spinning frame; and also to figure the cost of the machinery for the two mills. The yarn test was for the purpose of determining the breaking strength and the elasticity or the amount of stretch. The amount of waste was also determined for the pickers, cards and drawings, the waste in the other processes was estimated.

The total weight of cotton fed to the breaker picker was 105 pounds and the total delivered was 102.35 pounds. The difference is 2.65 the waste made by the breaker picker. Of this amount 1.7648 pounds was collected from under the machine as motes, dirt, etc. This is called visible waste 2.65 minus 1.7648 gives .88519 pounds of invisible waste. Or figured as per cent 2.65 divided by 105 gives 2.52 per cent as the total waste, and 1.7648 divided by 105 gives 1.68 per cent visible waste, .88519 by 105 gives .843 per cent as invisible waste.

The total amount fed to the intermediate picker was 63⅞ pounds and the amount delivered was 63 1-16 pounds. The total amount of waste made 13-16 pounds, the visible waste was .48722 pounds and the invisible was .3253 pounds. The total per cent of waste made was 1.27 and the visible waste amounted to .762 per cent, the invisible waste was .509 per cent. The amount of waste made on the finisher picker was .7216 pounds of this amount. .4569 pounds was visible and .2647 pounds was invisible, or the total per cent of waste made amounted to 1.14 of this .724 per cent was visible and .416 per cent was invisible.

The amount of cotton fed to the card was 28 1-16 pounds and the amount delivered was 7 1-16 or a loss of 1 pound, or 3.572 per cent. The amount of waste made in the drawings was about two per cent for the processes.

After the yarn was made it was tested for size, strength and elasticity. The table given below shows the results obtained from both yarns made from double and fly frames together with the same drafts and with the same size. From the intermediate through the spinning, the draft of the double roving yarn was greater than the draft of the single roving yarn.

Yarn Tests.

No. Hank	Wt. Grains	Lbs. Bkg. Strength	Elasticity	No. Yarn
1	43.5	79	1 11–16	22.83
2	43.7	76	1½	22.88
3	44.1	77	1 15–16	22.68
4	45.2	78	2	22.12
5	44.6	79	1⅞	22.42
6	45.3	77	1⅞	22.08
7	45.2	74	1⅞	22.08
8	45.7	79	1 11–16	21.88
9	46	81	1 11–16	21.69
10	45.4	77	1⅞	22.03
11	43.2	76	1⅞	23.15
12	45.1	74	1⅞	22.17
—	—	—	—	—
Average	45.6	77.25	1.81	22.33

Double Roving Yarn.

No. Hank	Wt. Grains	Lbs. Bkg. Strength	Elasticity	No. Yarn
1	43.9	83	2	22.87
2	46	75	1 13–16	21.74
3	45.3	77	2	22.08
4	45.7	79	2	21.88
5	45.7	80	1 11–16	21.79
6	44.9	80	2 1–16	22.27
7	46.5	90	2⅛	22.51
8	45	79	2	22.22
9	45.2	78	2⅛	22.18
10	44.5	74	2	22.47
11	45.3	87	2⅛	22.08
12	45.5	93	2⅜	21.98
—	—	—	—	—
Average	45.3	81.25	2.01	22.03

The results as shown from the table are: first, that made from single roving have a less break strength in pounds and that they have less elasticity. Second, that the double roving yarns are more even and will size up nearer the desired counts than those made from single roving.

The second part of this work was to make a machinery layout for a mill to make 22s warp from double roving and also one to make 22s from a single roving. The size of the mills are each 10,000 spindles. The roving was made with the same draft through the slubber, and up to this point the same amount of machinery is necessary, but less intermediate and roving frames were used for the single roving than for the double.

The machinery for a 10,000-spindle mill making 22s from double roving.

Draft	Machine	Wt. or Hank
8.8	Spinning Frame	22
6.¼	Roving	5
5 1–3	Intermediate	1.6
4	Slubber	.6
6	Drawing	55.5 grains
6	Drawing	5.55 grains
90	Cards	5.55 grains
	Finisher picker	12.6 oz. lap.

We are to have 10,000 spindles in spinning and they come on frames of 208 spindles, so it will require 48 spinning frames. The production per spindle per day, allowing for stoppage, is .333 pounds, or we have a total production of 19,244 pounds per week. The production from the roving frame should be 2 per cent more than the amount used by the spinning frames. This extra amount is allowed for waste, etc. The production of the roving frame is 17,731 pounds per week. The production per spindle on hank from roving frame is 8.25 pounds per spindle per week, and to supply the necessary yarn for the spinning frame will require 2,304 spindles. The frames are made 5¼" space and 136 spindles to the frame, so it takes 17 frames, or a total of 2,136 spindles. The size of the frames are 37' 2" x 3' 2½–. Allowing 4 per cent than the weight spun, the amount to be delivered by the intermediate fly frame is 20,117 pounds per week. The products per spindle on the intermediate making 1.6 hank roving is 30.96 pounds per week. The total spindles required are 650 each, frame contains 108 spindles 7½ space. So it will require six frames; size of each frame is 36' 1" x 3' 6".

Allowing 6 per cent more for waste and stoppage than the amount spun the slubbers must produce 20,504 pounds per week. Each spindle produces 115.34 pounds per week, so it will require 178 spindles. The frames are made in 60 spindles sizes 9½" space, so it will require 3 frames, the size of each frame is 45' 8" x 3' 6". Allowing 10 per cent more than is necessary for spinning and also time for stoppage, the amount to be delivered by the drawings is 21,728 pounds per week. Each drawing delivery produces 165 pounds per day, from roll making 390 R.P.M., or each head delivers 990 pounds per week. It will require 21 deliveries or 7 deliveries. It will require the same equipment for a second set of drawings.

Allowing 15 per cent more for the cards than is necessary for the drawings, the cards must produce 22,869 pounds per week. The production per card is 956 pounds per week, 28-inch doffer, 11 R.P.M., 25 teeth on doffer, 166.24 R.P.M. coiler calender rolls. The dimensions of the cards are 10' 9" x 5' 8", and it will require 24. Allowing 15 per cent more production on the pickers than is necessary for the cards, it will require 26,290 pounds per week. It will require two sets of pickers, each set consisting of an opener, breaker, intermediate and finisher.

The yarn is to be sold on cones and we will use the Universal Winder,

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Discussion at Georgia Meeting

THE spring meeting of the Textile Operating Executives of Georgia, held at the Henry Grady Hotel, Atlanta, on March 18, was devoted to a discussion of carding and spinning. The meeting was presided over by W. W. Arnold, Jr., Manchester, Ga., who called the first session to order at 10 a. m. After the invocation by Frank K. Petrea, Columbus, Ga., Chairman Arnold urged a free discussion of the various subjects and the turned the session over to G. A. Franklin, of Augusta, Ga.

CARDING DISCUSSION.

(Led by G. A. Franklin, Augusta, Ga.)

CHAIRMAN ARNOLD: We want to get into this discussion right away. We have not so many questions, but we are going to go right to it, and get through with what we have, if possible, within an hour. When we are showing anybody through the mill, we usually start back at the opening room. So, instead of taking up these questions in the order named on this questionnaire, I am going to take them up somewhat in a different order, and I am going to take up the fourth question first, which is as follows:

"What is the best method for conditioning cotton or laps in the picker room?"

There seems to be a diversity of opinion on that. Some think opening the cotton and allowing it to age is the best. Some use humidifiers. Some want to dry it out. Others probably think differently. Don't all talk at once. Let just one get up at a time. This discussion is going to take about an hour, so I will ask you gentlemen back there to come up here and sit down. Don't stand back there. You don't say anything, if you stand back there. Come up here to the front close and sit down. Mr. Matthews, will you let us hear how you manage your cotton in the picker room?

R. K. MATTHEWS, Eatonton: We do not use humidifiers at present. The cotton is sent to the opening room through a conveyor, and from there on to an automatic distributor, that carries it to the hoppers. We only use two methods of picking, and we use no humidifiers at all.

Opening Process.

MR. FRANKLIN: Do you think opening the cotton and allowing it to age is better than using humidifiers?

MR. MATTHEWS: Whether I think it or not, I am doing it. We use compressed cotton, and we try to open up enough to be 24 hours ahead.

MR. FRANKLIN: Is Mr. Meares here?

J. W. MEARES, Monroe: Yes, sir.

MR. FRANKLIN: I understand that at your mill you have a new method of working your cotton. How do you do it?

J. W. MEARES, Monroe, Ga.: We tear the ties off, and let the cotton stand as long as we possibly can, depending on the condition, and we spray our cotton with oil.

MR. FRANKLIN: Where do you spray the cotton:

MR. MEARES: In the open air. We have sprayed it with atomizers, and we tried air under pressure, and we open it out in the air. We are getting along very well. We find it improves the fibre.

MR. FRANKLIN: Does it increase the breaking strength?

MR. MEARES: Yes, sir, it does, four to five pounds. We like this practice very well so far. We don't know what we are going into later on, but we certainly like it so far.

Question: Do you get the same amount of moisture in the yarn after the oil is applied that you could have gotten before it was applied?

MR. MEARES: Yes. I believe we can eliminate the humidifiers.

Question: Do you find the cotton cleans as well where you use oil as it did before the oil was put in?

MR. MEARES: We have not noticed any material difference in that. I think we are getting along with the cotton just about as well as we did before. I went into this matter very thoroughly before I adopted the use of this oil.

Question: Are any of your goods sulphur-dyed after you manufacture them?

MR. MEARES: As I say, I went into it pretty thoroughly before I adopted the oil. I went to a mill that was using it and they were having all kinds of trouble. They had tested that out before they went into it. I didn't want to run into any trouble with finishing work, but I found there was absolutely no trouble with that. The oil is mixed with water, and emulsifies, and really the people we manufacture for claim that it helps. They claim it helps. Anyway, we like it, and, unless something unforeseen happens, we are going to stick to it.

JOHN H. HOWARTH, West Point: Do you find that it affects the card room? Does it gum up the cards?

J. W. MEARES, Monroe: I want to say this. That is a proposition on which you have to use a good deal of judgment. On the start it gummed up the cards because we put in just as much as we could. I know some mills would be disposed to throw it out on the idea that it gums up, but we got over that, and started all over again, and of course you have to get it up to a point where it will work. It did gum up the cards, and gave us trouble, but you know you have to overcome things, and you have to experiment, and find out things, and be governed accordingly. If you get too much of it in, it will gum up the cards. Otherwise it won't give you any trouble.

MR. HOWARTH: What percentage of oil do you use?

MR. MEARES: I would say about one per cent.

MR. HOWARTH: Where do you use it?

MR. MEARES: In the hoppers.

MR. HOWARTH: Use it with a pump?

MR. MEARES: Yes.

C. R. BRUMBY, Cedartown, Ga.: Did I understand you to say you increased your breaking strength four or five pounds?

MR. MEARES: Yes, sir.

MR. FRANKLIN: Do you find that goods sent to a sulphur dye plant after this process of oil spraying is used, will be affected by the sulphur dye in any way?

MR. MEARES: No, sir. We were assured by the makers of this oil that it would not be affected. I took that question up with them personally, and had a letter from them to that effect. Mr. Lovern can tell you something about the use of this oil.

MR. FRANKLIN: Mr. Lovern, can you tell us something about this practice of using this oil?

E. E. LOVERN, Newnan: I don't know just what you want to know about it?

MR. FRANKLIN: Do you use this oil, and how do you use it, and what do you think about it?

MR. LOVERN: We use it the same way Mr. Meares has outlined.

MR. FRANKLIN: Are any of your goods sulphur dyed after they leave the mill?

MR. LOVERN: No; they are sulphur dyed before they leave the mill.

MR. FRANKLIN: What about gumming of the cards? Do you have any trouble with that?

MR. LOVERN: No; I find no trouble with that at all.

MR. FRANKLIN: You use the same amount that Mr. Meares uses?

MR. LOVERN: Yes, sir. As long as you stay within the proper per cent, you will be all right.

MR. FRANKLIN: What about breaking strength?

MR. LOVERN: We made one test that showed an increase of three to four pounds in breaking strength.

MR. FRANKLIN: What about the cleanliness of the yarn?

MR. LOVERN: It is about as clean as it was before. There is no special difference.

MR. FRANKLIN: What about the fliers?

MR. LOVERN: Well, you know lots of good cotton falls out of the fliers.

W. H. EPPS, Jefferson: How much has it increased your production?

MR. LOVERN: I don't know. I was not after that part of it.

MR. EPPS: Does it load your goods? Do you get any better weight?

MR. LOVERN: You get the weight of the oil.

MR. FRANKLIN: Do you get the same amount of humidity in your goods that you did before you used the oil?

MR. LOVERN: I don't know.

MR. FRANKLIN: There is a question in my mind as to whether it would take up the amount of moisture it would before.

MR. EPPS: What is the name of that oil?

MR. LOVERN: "Minerol," or "Mineral Oil," I believe it is.

MR. EPPS: How many men here are using that oil?

MR. FRANKLIN: There seems to be two or three here.

MR. EPPS: I want to get some of that oil.

MR. BRUMBY: I will give the man a contract today, if he will increase my breaking strength on 30s two pounds.

MR. FRANKLIN: Let's see what these other gentlemen are doing.

Spraying Mineral Oil.

CHARLES OAKES, Griffin: Speaking about the spraying system at Griffin Manufacturing Company, we put in one machine and we made a test for about three weeks. I made various tests to be sure that we didn't affect our goods, and that we got the same amount of cleanliness and freedom from any foreign matter. We made six tests, I believe. We showed an increase in the saving of stock of about half of one per cent in the picker room. We didn't find in any test that there was dust or motes or anything like that passing through. We were putting one pound of mineral oil to 100 pounds of cotton. We found that we saved thousands and thousands of fliers that went into the goods that could be sold in the price of the goods. After using this for three weeks I asked the superintendent, Mr. Martin, about it, and wrote him a letter about it, and I questioned the boss spinner, Mr. Hockaday, as to its running in the spinning room. We found we had less breakage on the slubbers. I had the superintendent and the general manager with me, and we stood and watched this run for a number of minutes, possibly a half an hour, and Mr. Martin may tell you about it later. After we had seen the great effect of this spraying, we recommended that we put it in. I have information direct from the boss spinner that it runs better, it draws better, and I believe it will absorb just as much humidity. Our wastes are easier to handle than they were before. I believe that we have gained one per cent. This oil is Breton's Minerol.

Gentlemen, I believe that cotton manufacturing today is, you might say, in its infancy. We are living and learning, and we find every once in a while some fellow invents something that is all right. So this fellow that started this spraying proposition, started a good thing, and if there are any of you gentlemen who have not tried it out on raw stock, I would advise you to try it out for your own individual satisfaction. I believe you will be more than pleased and more than paid by using it. (Applause.)

D. G. REID, Hogansville, Ga.: I would like to ask Mr. Oakes, if you are getting a perfect piece of yarn by cleaning out your waste, do you advocate then putting something in your cotton that will keep that waste from going out?

MR. OAKES: Necessarily the short fibre will still fall out, but we can retain lots of good fibre that is long enough to put in the goods. We hold the better fibres that we have been losing.

MR. REID: I don't know anything about the use of this oil, but it seems to me that we are taking waste out of the yarn and then putting it in there again and making that much more waste and weaker yarn.

MR. FRANKLIN: If you are getting an increased breaking strength, would that not offset that?

MR. REID If you can get the breaking strength increased with the oil, why not have the humidifers too?

Conditioning in Picker Room.

MR. FRANKLIN: I have advocated conditioning cotton in the picker room . Some of you fellows have told me that wet cotton cleans a whole lot better than dry cotton. I don't know how to answer that. So I sit down and don't say anything, but I believe, if you have 4 per cent humidity in the picker room, and icrease it to 8 per cent, you can tell the difference in cleaning your cotton. They have said that you can't humidify the picker room with the draft, because the draft in the picker room won't let you have a uniform humidity. Of course this air has got to come from somewhere to get in those fans. We are up against that. We have in one of our mills used some humidifiers in front of the finishers. We think we get a firmer lap there. We never have any trouble with the cards of this particular mill. We think it is important.

Now we all here are just one family. We want to discuss this thing. Let us hear from you.

MR. BRUMBY: Everybody, who has humidifiers, and conditions in the piker room, stand up. (Fcur.)

Use of Mineral Oil.

HENRY D. MARTIN, Griffin: I was surprised on coming to this meeting to find that this pratice had already become general. I was under the impression that the man, that sold that oil, sold it only to us. I found last night at the committee meeting that several mills are already using it, and it is fast becoming public property. Therefore I don't hesitate in getting up and telling you what we know about it. Mr. Oakes has already told you about the thing. A friend of mine came to the mill some months ago, and he said to me somewhat in an undertone "Why don't you spray your raw stock with oil"? I said "What is that"? He went on to tell me about it. He told me about what they were doing at Mr. Lovern's mill. As soon as he left the mill I jumped into my car, and went over to see what they were doing at Mr. Lovern's mill over there. I had not been talking but a little while until he said that all of his overseers were going to leave him, if he didn't stop using that oil. I looked over his plant, and I never saw a better running mill anywhere in my life. No dust, and nice smooth round yarn. When I returned to the mill, we put in a batch of this stuff. We tried one machine, and we have every machine equipped now except one. We have orders for that. So far as I know now, gentlemen, I am not going to talk about whether the yarn is stronger or cleaner or not, but we find it makes a good bit of difference as to what you are selling. I know this, that we have a mill running as good as any mill can run, with no dust, and everybody satisfied. I feel that we are only babies in our knowledge of this particular thing, but so far as I know now I would not run a mill without it.

We are always on the eve of learning new things, not only in humidifying cotton, but in the matter of supplying food to the cotton. You sometimes find it necessary to oil or grease your hair; the women folks like to put something on their faces; and cotton needs something besides water, something besides heat, and those things. I did know this—that the woolen mills from time immemorial have oiled their stock. I also noticed that, when they ran cotton or waste, as a great many woolen mills do, they don't stop at the cotton, s far as their oil is concerned. They oiled it the same as the wool, and the woolen mills use a great deal of water. I remember a large mill in New York State, that put in a woolen system and a cotton system, and I wondered why they used so much oil, and they used as much oil on the cotton as on the wool.

I shuld say that anything in excess of one per cent might be unnecessary, or might be dangerous. I should say one per cent would be the limit, and I believe it is a great benefit to cotton manufacturing.

MR. FRANKLIN: I don't know how many of you knew about this before you came here, but a great many seem to be interested in it. We can discuss this a little longer, but we have already discussed it nearly a half an hour.

MR. BRUMBY: It is worth discussing. Mr. Martin, is it black or white stock you are using?

MR. MARTIN: All colors. Our numbers are from 5 to 25.

MR. FRANKLIN: Mr. Meares, your numbers are usually about 24s?

MR. MEARES: Yes.

MR. HOWARTH The gentilemen is over here, that sold that oil to those fellows. What about hearing from him?

MR. SMITH: I work for the firm, any anything I might say about it would be discounted.

MR. EPPS: I would like to know why that fellow is selling a few of these men, and not calling on the rest of the superintendents? I can't quite figure that out. I have bought everything, and he has not called on me. (Laughter.)

ROBERT W. PHILIP, Atlanta: He says he will be around to see you.

MR. EPPS: I want you to come to Jefferson. If there is anything the matter with my work, I want to improve it. I don't think you ought to slip around to Mr. Lovern and Mr. Meares and Mr. Martin, and not let the rest of us in on this thing. (Laughter.)

MR. HOWARTH: The gentleman says he will be glad to see us after the meeting.

MR. FRANKLIN: Come up to the front here, gentlemen, you who have just come in. The gentleman right here by me has asked will this oil have any effect on the stuff that goes into rubber goods? (No response.) Nobody knows anything about it, it seems.

MR. BRUMBY: I think this is the most interesting question that has ever been brought up in any of these meetings. Personally I don't want to get off of it. I think it is the most important question we have before us today.

MR. FRANKLIN: That's why I got onto it first.

MR. BRUMBY: It is the most interesting thing I have yet heard.

F. E. HEYMER, Columbus: I believe those people wanted to make sure that they had a real thing before they went to offer it. I am experimenting on it now. I was one that he came to see about it. I had heard rumors about it, and so I went and investigated it, and I am on my fourth barrel now. I run it on all colors of stock. He left it with the understanding that he would put one per cent of the oil in raw stock, in all colors, basic colors, and white colors, and indigo. When we started off with that, we found, after it left the drawing frame that the fibre would draw through easy, and we didn't have any uneven drawing. We examined it very closely under the microscope. However, when it came to the slubbers, we seemed to have some trouble. I would like to know if those that have used it had the same trouble.

CHARLIE OAKES, Griffin: We didn't have any trouble.

MR. HEYMER: I intend to experiment to reduce the amount of oil we put in our stock, or at least regulate it. We have automatic atomizers on each hopper, and a certain stroke will deliver a certain amount of oil. You can regulate that to any amount you want. Duringg these cold days in January I want to relate this experience. After you color cotton—of course on white cotton you won't have so much difference—but after you dye cotton, and take the natural substance out of it. you must replace that in a way with a certain amount, so it will run well in cold weather. When we began to use that, in cold weather I never experienced one bit of trouble. I use it on every color now, and during all this cold weather we never lost one end on the cotton morning or night. That convinces me that there is some merit to the oil. Mr. Martin says that they have been using that from time immemorial on woolen stock. The reason they have to do that is that they put the natural and necessary element in it after they dyed it. That is what we are doing today after dyeing it and taking it out. You have to put it back, and this oil I believe solves the problem.

When I go into my spinning room —we are making yarns with a very little of twist—I find that since we have used that oil we hardly find any loose twist. They used to only run four to five sides, and they run from siv to eight sides now. Whether that is due to the use of the oil or not I am not prepared to say, but I am convinced that this is going t obecome one of the most necessary things in our cotton manufacture. We have had it on trial 30 days.

You have to experiment with the amount of oil that will suit your own conditions. Now in regard to the percentage you put in there I am not going to say. I have spent a whole week in the picker room trying to decide that, but that is one thing I have not been able to do, and I don't know whether anybody else has or not. I can only find out by experimenting, but there is no way of telling what you should put in there. I have not been able to figure the percentage of oil necessary. That is one thing on which I believe you have to use your own judgment. I will say this much for it. I would not be without it, especially during the winter. There is a wonderful improvement in our yarn. As to the breaking strength I cannot say. We don't require breaking strength, but it is perhaps better.

MR. FRANKLIN: In defense of these men selling this oil, I might say that they called around in different sections perhaps purposely. I had one call on me some time ago, but I was skeptical about the oil for this reason. We make piece goods, and then they sulphur dye the pieces. I have got a sample of the oil at the mill now. I tried to get it before this meeting came on, but what I am going to do, I am going to take a bolt of cloth, and dab little spots of this oil all over it, and then send a man and have it run through the sulphur dye, and bring it back, and see if I can see any signs of it. If you are going to use it, where you are going to sulphur dye after your goods leave the mill, you ought to be very careful.

MR. LOVERN: I suppose I was the first one to use the oil. I know I was. You need not be afraid to put it on anything, so long as you stay under one per cent. There is no danger in it until you get above one per cent. It will do this, you know—it will take the place of humidity. You won't find any static electricity in the cards. It will cut your fliers to a certain extent. There will be less waste; it will strengthen your yarn to a certain extent; and several other things. I put it on white stockings. It goes on everything we make. We have never found any trouble at all whatever from it. It depends on what you think, how you feel, and how you watch it, as to how much you think you can put on. As long as you stay within one per cent, you will have no trouble.

MR. FRANKLIN: If there are any more questions, let us have them, because we are going onto another subject. A gentleman right here wants to know, does it make any difference in your strips?

(Continued on Page 14)

Attendance at Georgia Meeting

Among those who attended the meeting of the Textile Operating Executives of Georgia last week were:

Allen, Jas. B., Southern Belting Co., Atlanta, Ga.
Anderson, D. W., Manager, Pacolet Mfg. Co., New Holland, Ga.
Arnold, Jr., W. W., Manchester Cotton Mills, Manchester, Ga.
Barker, Jr., Ben S., E. F. Houghton Co., Atlanta Ga.
Barnett, J. E., Asst to Treas., Atlanta Harness & Reed Mfg. Co., Atlanta, Ga.
Barnett, W. R., Overseer Carding, Hermitage Mill, Camden, S. C.
Bramlett, C. G., Carder, Roanoke, Ala.
Brook, G. R., Supt., Mary-Lelia Cotton Mill, Greensboro, Ga.
Brooks, Fred P., Saco-Lowell Shops, Charlotte, N. C.
Brown, C. R., Supt., American Textile Co., Atco, Ga.
Burnham, B. R., Supt., Whitney Mfg. Co., Whitney, S. C.
Campbell, L. W., Borne, Scrysmer Co., Charlotte, N. C.
Chandler, Edwin, Carder, Exposition Cotton Mill, Atlanta, Ga.
Clark, David, Editor, Southern Textile Bulletin, Charlotte, N. C.
Colbert, L. B., Carder, Trion Co., Trion, Ga.
Crowder, J. J., Overseer Spinning, Stark Mills, Hogansville, Ga.
Davis, Rogers W., Saco-Lowell Shops, Charlotte, N. C.
Dennis, Frank S., Mgr. & Supt., Consolidated Textile Corp. LaFayette, Ga.
Dickey, S. L., Walraven Co., Atlanta, Ga.
Dickerson, F., Salesman, H. & B. American Machine Company
Dillard, Jr., Walter B., O-Twisting & Beaming, Aragon Mills Aragon, Ga.
Dooley, J. H., Supt. Dyeing & Finishing, Whittier Mills Co., Chattahoochee, Ga.
Dunn, D, C., Salesman, Stafford Co., Charlotte, N. C.
Eller, J. C., O-Spinning, Monroe Cotton Mills, Monroe, Ga.
Fagan, Chas. S., Night Foreman, Standard - Coosa - Thatcher Co., Piedmont, Ala.
Fallin, W. P., Carder, American Textile Co., Atco, Ga.
Ford, J. Q., Overseer Spinning, American Textile Co., Atco, Ga.
Franklin, G. A., Supt., Sibley Mfg. Co., Augusta, Ga.
Gammon, J., O-Spinning, Exposition Cotton Mills, Atlanta, Ga.
Gammon, W. S., O-Finishing, Griffin Mfg. Co., Griffin, Ga.
Gammons, W. W., Overseer, Whittier Mills, Chattahoochee, Ga.
Gayle, Walter, Seling Agent, Saco-Lowell Shops.
Goodroe, C. H., Supt., Hampton Cotton Mills, Hampton, Ga
Griffith, A. S., Spinner, Manchester Cotton Mills, Manchester, Ga.
Greer, W. S., Greenville, S. C.
Hall, Jr., C. Y., O-Spinning, Unity Cotton Mills, LaGrange, Ga.
Hames, J. W., Supt., Exposition Mills, Atlanta, Ga.
Hampton, J. H., O-Spinning, Fairflax Mill, Fairflax, Ala.
Harris, Jack, Southern Rep., Holyoke Belting Co.
Hart, F. W., Southern Belting Co.
Haynes, Wm., Salesman, Draper Corp., Atlanta, Ga.
Heymer, Frank E., Supt., Bradley Mfg. Co., Columbus, Ga.
Hinde, M. K., Asst. Supt., Quality Yarn Mfg. Co.,
Hollis, J. M., Spinner, Unity Spinning Mills, LaGrange, Ga.
Horner, J. W., Salesman, Jos. Sykes Bros. Co., Atlanta, Ga
Howarth, J. M., Southern Rep., 'Clinton Starch"
Howarth, John, Asst. Supt., Lanett Mill, West Point Ga.
Huckaby, C. A., O-Spinning, Griffin Mfg. Co., Griffin, Ga.
Hunt, J. T., O-Carding, Unity Spinning Mill, LaGrange, Ga.
Jenkins, B. W., Master Mechanic, Unity Spinning Mills, LaGrange, Ga.
Jennings, Jas. L., Lanett Mills, West Point, Ga.
Johnson, P. D., Salesman, Arabol Mfg. Co.
Johnson, T. W., Spinner, Scottdale Mills, Scottdale, Ga.
Jordan, J. M., Carder, Swift Mfg. Co., Columbus, Ga.
Kersey, T. B., Asst. Supt., Unity Spinning Mills, LaGrange, Ga.
Kimbrel, A. C., Salesman, Terrell Machine Co., Charlotte, N. C.
Land, Oliver B., U. S. Ring Traveler Co., Athens, Ga.
Lang, E., Mgr. U. S. Oil Co., Atlanta, Ga.
Langley, W. M., Supt., Abbeville Cotton Mills, Abbeville, S. C.
LeClair, E., Salesman, Atlanta Harness & Reed Mfg. Co., Atlanta, Ga.
MacAulay, Sr., Jno. D., Standard-Coosa - Thatcher Co., Piedmont, Ala.
Martin, Garland Co., Griffin Mfg. Co., Griffin, Ga.
Martin, H. D., Supt., Griffin Mfg. Co., Griffin, Ga.
Matthews, R. M., Supt., Peerless Cotton Mills, Thomaston ,Ga.
Melchor, Guy L., Salesman, Howard Bros. Mfg. Co., Atlanta, Ga.
Merritt, C. R., Salesman, Southern Belting Co.
Moore, Fred., Asst. Supt., LaFayette Cotton Mills, LaFayette, Ga.
Newsome, Jas., Mngr. & Supt., Unity Cotton Mills, LaGrange, Ga.
Nohl, C. W., Distributor, E. F. Houghton & Co.
Oates, C. L., Salesman, Charlotte Supply Co., Charlotte, N. C.
Oates, Jas., Carder, Griffin Mfg. Co., Griffin, Ga.
Oliphant, A. D., Sou. Mgr., Textile World, Greenville, S. C.
O'Neal, Jno., Cotton Man, Exposition Cotton Mills, Atlanta, Ga.
Palmer, L. K., U. S. Gutta Percha Paint Co.
Perkins, J. H., Carder, Monroe Cotton Mills, Monroe, Ga.
Petrea, Frank K., Supt., Swift Mfg. Co., Columbus, Ga.
Phillips, W. L., Supt., Social Circle Cotton Mill, Social Circle, Ga.
Platt, J. C., Supt., Acworth Mills, Acworth, Ga.
Poole, D. F., Supt. Morven Mills, Durham, N. C.

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MR. LOVERN: No, sir. The first test I put on it, I had the strips weighed and watched it carefully. I could stand ten steps away, and tell what I had the one per cent on and what I did not. The question might arise if you are putting through stuff, that ought not to go in. We are on a class of goods that we have to clean about 60 pounds to the card. We were doing that before we put the oil on, and they are as clean afterwards as before. If you will examine the card strips, you will always find good fibre. If you get more of that in there, there is no damage done. It pulls the fibre out, and it has the same effect as humidity does. Humidity won't stay put. If you get the oil in there, it will stay put. You can open the windows. I ran the mill this summer two weeks without humidifiers.

Question: When you fill the hoppers, what is to prevent your getting too much oil in the hopper?

MR. HEYMER: It will stop automatically. The pump is connected with the hopper, and it stops automatically.

GENERAL CHAIRMAN ARNOLD: Due to the large amount of free advertising that the manufacturers of this oil are getting, I think they should make a very substantial contribution to the Stone Mountain Memorial. (Laughter.)

CHARLIE OAKES, Griffin: One point I would like to bring out. We have been trying to eliminate dust. The use of this oil eliminates dust, and increases the health conditions in your mill. It is as clear in our card room inside almost as it is outside. I want to invite you gentlemen to come down and go through there, and look for cleanliness.

MR. FRANKLIN: If there is nothing else on that question, we will pass to the next question, which is as follows:

"Is it injurious to card sliver, if cans are allowed to run too full?"

Everybody has answered that question the same way. They all say yes. I think we ought to change that, and see if there is any way to prevent them running too full. Everybody in these answers has agreed that it is injurious to run the cans too full. Can some one tell us a method to prevent it, or have you any way?

Mr. Sorrells, let us hear from you. What do you think about that? It is the sense of these men that that will injure the sliver. Have you some way to prevent the cans running too full, as it is injurious to the sliver?

Sliver Cans Too Full.

J. A. SORRELLS, Gainesville: I worked out a little contraption that helped me out a whole lot. Where the trumpet is, right underneath, put a set screw with a little nut on there to rest against that auxiliary roller. There was a little knob built to rest on that. I set that down just close enough to allow just a little bit of vibration in the sliver going over. When it gets a little extra thickness that chokes it down and breaks the end down, and, when the can gets up to where it presses the sliver out some, it raises that tongue there and breaks that end.

MR. FRANKLIN: Is that patented?

MR. SORRELS: No, sir.

Long Draft on Cards.

MR. FRANKLIN: Well, we will go to the next question, which is as follows:

"Will long draft on cards make a weaker yarn?"

The question is going to be asked, what is a long draft, and what is a short draft? The committee decided to consider 90 to 100 a short draft and from 100 up a long draft, that is, 100 to 25. Now will some of you gentlemen who run over 100 tell us whether you think it weakens your yarn or not?

FRANK S. DENNIS, LaFayette: We run a draft of about 125. You can use a heavier lap, and it increases your capacity. You can increase the strength of your yarn numbers. So far as we can tell, our breaking strength is a little better than before we changed our draft from about 92. We changed from a 10-inch to a 14-inch lap.

B. R. BURNHAM, Whitney, S. C.: It is better practice to have the longer draft on 30s yarn and the short draft on coarser numbers. We have used 95 in our experience up to 30s and 110 on 30s yarn. We have found that on our finer numbers by getting a greater carding action we get better results in evenness and breaking strength to some extent.

MR. FRANKLIN: Has somebody else had similar experience?

D. G. REID, Hogansville: We spin from 6s to 13s, and I increased the draft from 100 up to 120, and I didn't see any difference at all in breaking strength.

MR. FRANKLIN: Now is there somebody in the audience that has increased his card draft at any time and found it did weaken the yarn?

MR. TODD: I did, and I found my breaking strength went down about 8 per cent.

MR. BURNHAM: We found that everything over 100 on the coarser numbers our breaking strength went proportionately.

MR. FRANKLIN Then the idea is that on coarse yarn a short draft is better, and on the finer yarns the long draft gives you a better breaking strength?

MR. BURNHAM: That is what we found.

MR. FRANKLIN: Has anybody else tried it? (No response). Now are there any questions on this subject gentlemen?

Four Roll Drafting

Now, there is another point I would like to hear from Mr. Burnham on. I understand he has tried out the four-roll drafting I believe on the slubbers, and cut out the intermediate supply frames. Would you mind, Mr. Burnham, telling us what you found out about that?

MR. BURNHAM: I don't know as there is anybody, that is really competent to speak on four-roll drafting. I can give you our experience with that. It is something fairly new to us. The idea was evolved, as I understand J. P. King adopted the engineer of Providence. We were one of the first mills to adopt it, and I understand J. F. King adopted the idea. Mr. Sheldon's argument was that so long as you didn't hurt your evenness, you can draft any amount you want to on one frame, that is so long as you do not hurt your evenness from decreasing your doublings. I believe there is some risk in that argument. There is a place of course, beyond which you cannot go in decreasing you doublings. The idea of the four-roll drawing was to cut out the intermediates and get the same results on the slubbers and the speeder. The first 4-roll drafts we got up in the mill were very imperfect. We found on experiment that they should be progresssive. So we changed the gears over on it, and put on the drawing, that was progressive. On that frame we were drawing from 8 to 15 on the slubbers. On the speeder we were drawing about 8 to 15, and we got a great deal more variance in drawing by changing our front roll gear and changing the range of our gears. On the last speeder, that Saco-Lowell has sent out, they got a draft, that is standard. On the second or fourth, the draft is 309. It stops at that, and is not progressive. We found that worked all right on the speeder, but it will not in our experience work at the slubbers. We attribute that to the fact that the stock is so much harder to draft if you put your draft back there where you have got the bulk of your stock, for your top leather rolls are going to slip, and you are not going to get practically any draft on the top of the sliver, but you will get a very strong draft on the bottom of your sliver, where it engages the roll. We are experimenting with this four-roll drafting, and we have made on this four-roll work a great number of very exhaustive tests. Mr. Sheldon's man Cooper has gone over these tests for us, and he cannot increase our breaking strength over the three-roll process. He could not increase our evenness of yarn over the three-roll process, but he did equally well. He did everything we could do on our three-roll process. After we had tried it out, then he went back over our 3-roll frames, looked them over to see if they were all right, and he couldn't increase the breaking strength. So we cannot make any claim for breaking strength on the four-roll drafting. You can, however, cut out extra labor cost because you cut out your intermediates and get practically the same result.

Another thing, we are making a 24's yarn on a four-roll slubber and a three-roll intermediate, furnishing it directly to the spinning frame, a 3-hank roving, making 24's on 1½-inch ring, bobbin single wind. It speaks pretty well for the four-roll drafting. That's pretty good results.

MR. FRANKLIN: Do you get a breaking strength anywhere near the standard laid down?

MR. BURNHAM: Our breaking strength will run 68 to 70 pounds. That may be good or bad.

MR. FRANKLIN: I think it is pretty good. Do you use local cotton?

MR. BURNHAM: Local cotton.

GENERAL CHAIRMAN ARNOLD: On that four-roll drafting do they put on heavier weights? All four are weighted, are they?

MR. BURNHAM: Yes.

MR. ARNOLD: They don't carry extra heavy weights?

MR. BURNHAM: No. On the front roll there is a hook, that comes over, and 10 pounds hangs under that underneath. The heavy smooth rolls are weighted with 20 pounds. The back roll is weighted with 12 pounds and a hook; that is the slubbers.

HENRY D. MARTIN, Griffin: Do you find it necessary to put any couplings between the four rolls? Several years ago I operated quite a number of spinning frames with four rolls, and we found it necessary to have couplings between the two tiers so that the roving could be laid in comfortably.

MR. BURNHAM: We have no trumpet. We did find it necessary to put in under cleaners under the fourth roll.

MR. MARTIN: That is the fourth roll you say?

MR. BURNHAM: That is counting from the front.

MR. MARTIN: That would be the back roll.

MR. BURNHAM: Yes, sir.

Question: Did you change the settings of your rolls any?

MR. BURNHAM: On our slubbers it is 1½-inch,—65-grain sliver going in, making 80.80 hank roving. 1½-inch between the second and third and between the other 1¼-inch. That is a change over the standard on the three-roll frame.

Old Frames Changed.

MR. FRANKLIN: You had old frames changed to four-rolls? Is that practicable?

MR. BURNHAM: On the speeder we had old frames. It is very practicable, very easy to be done, but we were buying some new slubbers, and these came that way.

BR. FRANKLIN: Is there anything else gentlemen on that question?

MR. LANGLEY: We did apply the fourth roll on old slubbers, and it worked all right.

MR. FRANKLIN: The next question we will discuss not many of us know anything about. I presume it won't take us long. It is as follows: **"What is the best relative surface speed between the grinding roll and the clothing being ground"?**

I have never used anything but shop practice until this question came up, never thought of anything else until this question came up. From the answers, that came a good many are in the same fix I am in. I think Mr. Dennis might tell us something about that, and give us his ideas about it.

Slow Motion Grinder.

FRANK S. DENNIS, La Fayette: We had not our equipment at the time we had our meting in Atlanta to get up the questionaire Since that

time we have a slow motion attachment, that fastens on to the pulleys. You put this attachment on there, that is the big worm wheel, and then there is a little pulley attachment, that goes on that. It reduces the speed of the cylinders about four revolutions per minute. I understand it is more or less standard practice with the English mills to use this slow motion grinder. It looks to be all right so far. We cannot make any report as to whether or not the yarn is stronger, or anything else but the strips appear to be a little bit better, but it is hardly fair for us to say yet because we have only been trying it for two weeks. In general machine shop practice in grinding the surface on a piece of steel very slow speed is used in the finishing, and very high speed is used during the grinding. It is claimed that in grinding very slow speed should be used, and that if it is speeded up the relationship betwen the grinding wheel and the surface is destroyed, and they change from a cutting to a scratching. They canot get the finish on the surface that they grind by destroying that relationship.

MR. FRANKLIN: As I understand it, you have reduced your cylinder four revolutions, and left your grinding roll at the same speed?

MR. DENNIS: Yes, sir.

MR. FRANKLIN: Will you get up some data, ready to be submitted at the next meeting?

MR. DENNIS: Yes, sir. I will be glad to submit anything at all of interest.

MR. REID: How long do you keep your grinding roll there?

MR. DENNIS: We are going to reduce it down to 5, and let it stand for a while. It is posibly dangerous to put your roll up there, as it puts too much presure on. You have got to be very careful how you set the grinding roll.

MR. BRUMBY: That is a question I never heard brought up in my life until I got that questionaire. I think these people, that sell these to us, if they don't know what it ought to be, ought not to sell them to us. E. Chappell is here. He ought to tell us, or Mr. Melchor ought to tell us about it. It is something I would like to hear discussed.

MR. FRANKLIN: We are perfectly willing to discuss it, if we know enough about it to discuss it. The very object of these meetings is to bring out new points, and we may get something, that is beneficial. These card men are like the starch men over in Augusta; they all disappear when you want them.

A Voice: Mr. Melchor is back there.

GUY MELCHOR, Atlanta: I am not a mill man, and I don't know that I can discuss this.

MR. FRANKLIN: Have you ever known about that practice of grinding slow?

MR. MELCHOR: About the slow motion grind, I have heard of it.

J. A. SORRELLS, Gainsville: About ten years ago I reduced that little pulley on the end of the grinder roller down to about 3, 3½ or 4 inches. I speeded up the grinder. I didn't bother anything else.

Card Stripping.

MR. FRANKLIN: We will go on with the next question. This is an old one, something we handle every day:

"What is the best method of stripping cards, that is, how often, and should a roller brush be used with vacuum stripper?"

It is a fact that the character of cotton you are running, whether it is clean or dirty, has a good deal to do with the number of times you ought to strip. It is quite a difference too as to whether you use a roller brush or whether you use a vacuum stripper all the time. I don't think that we could tell just how many times to strip cards because I think the quality of your cotton would affect that. How many carders here, or mills here, use a roller brush? (A good many.) How many use a vacuum stripper without a roller brush? (Comparatively few.) It seems to be the practice then to use the roller brush.

MR. BRUMBY: How often?

MR. FRANKLIN: At one of our mills we don't use it at all. At another one we use it once a week.

MR. BRUMBY: I asked that question of Mr. Philip. I told him after summing up the whole thing I didn't see any use in using it at all. If you have got a vacuum stripper, I don't think it is necessary to use a roller brush at all. Although we do use it about once a month, I don't think it is necessary.

F. E. HEYMER, Columbus: I find it is absolutely necessary in our work to use it once a week. Furthermore, I use it, when I change from dark colors to light colors. On all classes of work we have a certain amount of dirt in there, that settles down, which we cannot get out very satisfactorily with a vacuum stripper. Consequently I have to use our roller stripper once a week, and when I change from a dark color on to a light, I use it.

MR. FRANKLIN: If on white work, you would use it once a week anyway?

MR. HEYSER: Yes, sir.

MR. BRUMBY: I am on white work altogether. You are on colored work?

MR. HEYMER: Yes.

MR. BRUMBY: I believe, if you are on colored work that is changing from white work to colored work, or from colored work to white work, you ought to use it, but if you are on white stock altogether, I don't think it is necessary at all.

MR. HEYMER: Some years ago I was on white work altogether, and I used it once a week then.

A member: We use the vacuum stripper on an English card, and never use the roller brush at all. It is not necessary.

MR. FRANKLIN: Why would you use it on one card and not on an-

other? Do you find one loads worse than another?

Answer: Yes, sir.

Burnishing Brush.

FRANK S. DENNIS, LaFayette: We use the brush occasionally. It is not necessary to use the roller brush in stripping. The idea in using the roller brush, if the card needs burnishing, it is of more use then than at any other time. That is our line of reasoning.

MR. BRUMBY: I have 176 cards, and I never had a burnishing brush in the last 10 years.

W. H. EPPS, Jefferson: How much do you pull?

MR. BRUMBY: 110 pounds.

MR. EPPS: I strip about once a week. If you are carding light, you can get by. If you are carding heavy, you will have to run your brush. It depends on your experience. I strip out twice a day. I strip out my rollers twice a week. If Mr. Brumby was carding 185 to 190 pounds a day, he would be glad to do it. He would have to do it.

MR. BRUMBY: How many people in the room are stripping just twice a day with a Cook's vacuum stripper on a 10-hour run? (Quite a number). How many more than twice a day? It seems to be about equally divided.

MR. EPPS: Those fellows, who are stripping out three and four times a day, try stripping out twice, and see if they don't get evener numbers. I find by stripping out twice I get better work than I did before.

MR. FRANKLIN: How many after stripping cards allow the sliver to run out awhile before they put the ends up? (A good many). The reason they do that is to let the sliver get back to normal weight.

W. W. ARNOLD, JR., Manchester: Don't you find a great variation in prices of your vacuum strips, those mills that sell the card strips? There is about 20 to 25 per cent difference in the value if you sell your strips. The vacuum stripper runs around about 20 per cent cheaper.

MR. FRANKLIN: Is there anybody in this crowd that gets anything like the price for the roller strips or the strips on the front of the card? I don't think there is. I think that has been threshed out. They claim it is snarled up, and they don't pay the price.

HENRY D. MARTIN, Griffin: I would like to ask if anybody has ever tried to get along without stripping? I heard of a manufacturer in a large mill that only stripped once in three weeks. Does anybody know anything about that?

MR. FRANKLIN: I don't. Does anybody know? There don't seem to be anybody who knows about it or who can get by with it.

MR. EPPS: He must have stopped his cards, the reason he didn't strip them. (Laughter.)

Uneven Tension in Drawing.

MR. FRANKLIN: The next question is:

"What is the remedy for uneven tension on drawing sliver with metallic rolls?"

I take it from some of the answers that some of the fellows didn't quite understand what we were driving at. As I understand it, you will have four to six deliveries of drawings on one frame, and you see the cards go through, and one end will run slack or tight, and the other will run along all right. He takes those rolls out and switches them around sometimes. He finds, when he gets them switched around, they do not run with the same tension. What makes that difference, and we want to know how to overcome it. Some of you carders can tell us something about that.

A member: Different sized collars will cause that, and you switch them around and it changes it, and that is practically the cause of it.

MR. BURNHAM, Whitney, S. C.: A couple of years ago before we renewed our drawing rolls the collars had gotten bad on them. Some years ago we raised them up, and relieved that tension in that way. I got up a little scheme to have an eccentric and set screw brought through that front stand in between your upper and lower metallic rolls. It rests just underneath the bearing of your top roll with an eccentric on it and a set screw around the eccentric on the inside. With this, where your collars are worn, you can raise it and tighten it.

MR. FRANKLIN: That overcomes it, does it?

MR. BURNHAM: Yes, sir.

MR. FRANKLIN: Is there anybody else who has anything to say on this subject?

A member: We had about the same experience on that line. The section hands bunched the steel rollers to make the ends run right. I noticed several times with right new rollers, when you first put them on, there is a variation there. The way we found our variation was by taking a micrometer, and sizing our rolls ups. We sized them up that way, and it has been about two years ago. Since that time we have not had any trouble at all since we got them sized right with a micrometer.

A member: We have practically new frames. I notice a slack end on drawing once in a while. Usually that is right after the section hand cleans the drawing. Taking those rolls out, he will get them mixed up, and get them out of place. when that occurs, I send them right back, and make them fit that roll back where it came from. Where the collars fit, you will not have that trouble, but you will have trouble if they get the rolls back out of place.

MR. EDWARDS: I am going to speak in defense of the spinner. My carder tried that eccentric on the roll, and I tried to kill him. I wish you would call on Mr. Hames to give his experience.

J. W. HAMES, Atlanta: We had some rolls worn pretty bad, and I tried out that eccentric screw, and I was glad to get rid of it as quick as possible.

MR. EDWARDS: I just wanted to leave the impression that these

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carders can get through with it all right, but the other fellow, the spinner, catches hell.

CHARLIE OAKES, Griffin: In addition to what has been said in regard to sagging ends on drawings, there is one other thing that causes sagging ends. That is a variation in the lap, a great variation. The best thing I have found is to go back to the pick-up room, and be sure I have all my laps just as even as the Lord will let me make them. A good many men will set them in where they will vary a pound. What has been said about renewing the rolls is the best thing to overcome it, and the second best thing to overcome sagging ends is to have even card sliver.

D. G. REID, Hogansville: We had quite a little bit of trouble overcoming sagging ends. We took all the rolls out, and worked on them and eliminated practically all of it. Some of the rolls have begun to wear, and just reversing those rolls, and drawing them up, it cut out the sagging ends.

MR. EDWARDS: If you will allow me to suggest, I would suggest that in changnig drawing rolls you are likely to get them mixed. You ought to mark them so as to keep them in the right place.

Polishing Flutes.

F. E. HEYMER, Columbus: I would like to ask for some information. Has anyone ever tried taking the collars you have worn off, and taking the top drawing roll, putting it on a high-speed lathe, and taking a very fine file, and smoothing it down after filing it, and then polishing it and putting it back?

MR. FRANKLIN: Do I understand you polish your flutes down?

MR. HEYMER: Yes.

A member: We tried that a few years ago, and we found the only remedy was a new roll. We shipped back some old rolls, and asked the manufacturers to repair them, and they said the only solution was to put new rolls in throughout. Another thing that causes that sagg ng is on account of your trumpets being worn uneven. The holes in those trumpets will become worn from year to year, and if you will take a gauge, you will find after the drawing has been running 10 to 20 years through them that there will be variation in the sizes of those trumpets, and it is a very good idea every few years to buy new trumpets. They don't cost you much, and then you can gauge them to the particular size you want them. Of course calendar rolls become worn and that will cause a difference too. Really the three things, the calender rolls, the fluted rolls, and your trumpets—any one of those three things will cause it.

MR. BURNHAM, Whitney, S. C.: We have tried all the polishing agents at times that almost any cotton mill man has tried, and we have found, if there is any filing to be done on a steel roll, it ought to be done where they have the polishing machinery or agents. You can't polish that machinery in cotton mills with what we have to work with, pumice and oil, or emery and oil.

Speed of Front Roll on Drawing.

MR. FRANKLIN: Has anybody else anything to say on this subject? If not, we will pass to the next subject:

"What do you consider the proper speed for front roll on drawing?

The answers on this run all the way from 300 down to 200, which is quite a difference of opinion. Now it has been my opinion for a long time, and is yet, that a great many of the mills, which have gone to one process of drawing, and have been benefited by that, have derived large benefit from reducing the speed of the front roll. If there is anybody here on one process of drawing, who has the speed of that drawing the same as they had it before they changed, and gets the same results, I personally would like very much to hear from him. You know there has been a whole lot said about going to one process of drawing. It has been advocated.

W. W. ARNOLD, JR., General Chairman: Let's hear from Mr. Thompson.

MR. THOMPSON, Manchester: We went from 445 down to 200, and found we got better results.

One or Two Processes?

MR. FRANKLIN: Do you think the benefit is caused by cutting out one process or by reducing the speed of your front roll?

MR. THOMPSON: I think both.

MR. FRANKLIN: If you were going to buy drawing today, you would have only one process, and run it slow?

MR. THOMPSON: Yes, sir.

MR. FRANKLIN: Has anybody else had experience on that line? Mr. Reid, have you?

W. A. REID, Pelham: We were running our drawing about 445. Running it now from 275 to 290, it works easier, and good results are obtained on the drawing, if not better, because I think we crowded it through too fast.

MR. FRANKLIN: If you were building a cotton mill, and going to put in drawing, would you put in one or two process drawing, and would you run it at slow speed?

MR. REID: I think I would run both.

MR. FRANKLIN: Mr. Phillips, have you had any experience along that line?

W. L. PHILLIPS, Social Circle: I have been running one process of drawing for 18 months. We cut our speed from 375 to 196, and we get just as even a yarn as we did before; we get a better breaking strength; and we run with half the labor.

MR. FRANKLIN: What would you do if you had to install drawing? Would you make two process and run it at 196?

MR. PHILLIPS: I would use one process. If I were buying new drawing, I would buy that and use one process. I can take a drawing frame, and run it through one process, and you will have just as much variation as you would have under the other. I had a man from Saco-Lowell shops, who came down and we checked one drawing, and weighed every end on the yarn, yard by yard, and then we put the edges in and doubled it back, and weighed it yord by yard, and there was no variation.

MR. FRANKLIN: Don't you cut out several thousand doublings, when you cut out one process of drawing?

MR. PHILLIPS: Yes, sir, that is true.

MR. ARNOLD: I have changed over one or two plants on to one process of drawing, and of course we cut down the speed. If you can keep your variation in weights down to what you want, that is on coarse numbers from 6 to 16's, the less you handle it through your drawing the better because you can go right over on this drawing, and the more you draw the sliver, the more you comb the natural twist out of the fibre, and it is smoother. As long as you keep your evennes to suit your yarn numbers, it looks like to me that one process of drawing is all that is necessary, and

(Continued on Page 20)

Smooth receptacles prevent loss

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Discussion at Georgia Meeting

(Continued from Page 18)

you get much better results. In fact it is so much harder to draw it under the same conditions otherwise. We have changed the weights on our slubber rolls to make it run even. Now we move up the weigths and take five-tooth twist out of the slubbers, and they run better, and we get increased production on the slubbers, due to taking the twist out, and we have less ends break down on the slubbers, but you have got to increase your weights on your rollers. if you don't, it will not run properly.

MR. FRANKLIN: What is your idea of proper speed for the drawing roll?

MR. ARNOLD: About 200. Around 200 is plenty.

MR. FRANKLIN: I have found that every time they go one one process of drawing the first thing they do is to reduce the speed, and improve the breaking strength, and improve the running of the work, but I have not found anybody yet, who has kept, his speed up to what he had before and tried it.

MR. BURNHAM: We tried that, and we got no benefit from one process of drawing.

HENRY D. MARTIN, Griffin: I might say, to make it as brief as I can, that on one process of drawing personally I believe that drawing frames can run very well up to 400.

A Member: We made several experiments on that line. We found that on two processes of drawing and on just one process of drawing at the same speed variations would run large. We found by cutting our speed, when we got down to 200 on the same drawing, the breaking strength did increase, increased something like 10 pounds. We cut it from 350 to 200, and the variation on the single process drawing and double process drawing I forget just what the figures were, but in experiments on that line we found that there was a lot of difference in single process and double process drawing, especially on numbers 7's and 8's and on up to 22's.

W. W. ARNOLD, Jr: I don't think any mill can cut out a process of drawing, and cut the speed down, and get good results. You have got to keep your work coming even. Naturally, when you cut out the doublings, you will have to increase your weight, but improve your process, and make your changes on the slubbers and speeders, and you can get just as good results.

MR. FRANKLIN: There is one subject for this discussion. That is **"Which is better for the double beaters—blade or Kirschner beaters?"**

Have any of you had any experience with the Kirschner beaters at the back end of your breakers?

Kirschner Beaters

MR. THOMPSON, Social Circle: I have a Kirschner beater on every machine in the mill. I get more dirt and trash out of my cotton than I did before. I get a better running work and a cleaner work. We have not set a lap back in our picker room since the carders meeting held here one year ago, and we are running 22's yarn in the spinning room on warp.

MR. FRANKLIN: What variation do you allow in your lap?

MR. PHILLIPS: Any amount that comes out.

MR. FRANKLIN: If you do set back, how much would you have to vary in weight before you set back?

MR. PHILLIPS: We would not allow anything to go in the card room over a pound. We found the variation was not always in weigth.

MR. FRANKLIN: I think all of us still weigh them, and set them back on account of weight.

MR. PHILLIPS: We keep record of weight on every beater.

MR. FRANKLIN: Has anybody else had experience with the Kirschner beaters?

W. H. EPPS, Jefferson: Is there any difference in the speed of those Kirschner beaters and blade beaters?

MR. FRANKLIN: Mr. Phillips, did you change the speed any?

MR. PHILLIPS: Cut it from 1500 to 809. On the breaker 500 and Kirschner 750.

MR. FRANKLIN: What difference do you make in the setting of those beaters?

MR. PHILLIPS: I set them just as close as I can get them. I would like to add one more thing. We have just bought a new breaker, and I asked that it be equipped that way, and Saco-Lowell took three months to put it through. They finally came to my turn.

MR. BURNHAM, Whitney, S. C.: On your length of lap there is a whole lot of difference due to the loggerheads. We have cut that difference down, and took the friction off the loggerheads. We ran the lap on the evener on the breaker picker, and direct to the finisher picker, and we got a variation of 1½ pounds as against 3 pounds on one machine and 4½ on the other machine without the evener and the breaker. Then we changed these evener breaker laps over to another finisher picker to be sure it was not the picker, and on the second round we got 1¼ as against 2½ on another and 3 pounds on another, which draws a conclusion from comparison in favor of the eveners on the picker.

MR. FRANKLIN: Has anybody tried eveners on pickers? Mr. Newsom have you had any experience?

MR. NEWSOM: We have just put in four pickers. I don't know that we have made any extra tests about that, but we have been hammering on this uniform weight for a number of years or more, and we measure the lap. We have a little contrivance made of screen wire on one of those frames. We lay the lap on there, and measure the lap that way by counting the number of revolutions. In that way we keep hammering in the thing and locate where the trouble is, and we have

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Discussion at Georgia Meeting

(Continued from Page 20)

gotten our lap very uniform. We have taken out then intermediate pickers altogether. We have a very uniform lap in that way. I think it is very beneficial, to have these beaters on the breakers.

MR. BRUMBY: Have you one or two processes?

MR. FRANKLIN: He says he cut out his intermediates, and runs it from his breakers to his finisher.

MR. JACKSON: I want to go back for just one moment to that one process of drawing, and ask one question. Do those people that use one process weave single yarn or not?

MR. FRANKLIN: They all seem to use single yarn.

W. W. ARNOLD, JR., General Chairman: Now, gentlemen, that will about close this discussion. I think we have finished on time, and it has been a very instructive discussion. We certainly appreciate the manner in which Mr. Franklin has conducted this discussion.

We are going now to have just a fifteen minutes' talk, and I will see that it does not go over fifteen minutes, by Mr. Rowe. That will give us fifteen minutes than to walk around a little, and luncheon will be served at 12:30. We will now hear from Mr. Rowe.

APPLICATION OF THE WORKMAN'S COMPENSATION ACT.

(By Mr. W. C. Rowe, representing American Mutual Liability Company.)

Mr. Chairman and Gentlemen: Mr. Thompson asked me some time ago if I would say a few words to you on the question of Compensation Insurance and the ways and means for obtaining low rates for cotton mills.

You may not think that this interests you much, but the whole situation is in your own hands. The compensation rates on cotton mills in Georgia have been jumped recently, and everyone is very much exercised over it.

Compensation rates on the cotton mill industry, as well as each individ plant, are based on the amount of money spent in the cotton mills and individual plants under the compensation law. In other words, if you can cut down your own compensation costs, your rates will automatically be reduced.

Just three main points I want to bring out in cutting down the cost, and some of you are already familiar with them, and others are not. The first thing I want to impress you with is that it is the cost and not the number of accidents that determines your rate. Therefore, do not have any hesitancy in having your employees come in for small accidents. Insist on them reporting all accidents promptly. Do not get the idea that your company is carrying insurance, and therefore it does not cost you anything to spend money under the compensation law. It does. That is what happened to the rates recently.

The first thing I would consider essential is to make sure that each accident, which is paid under the compensation law, is a legal compensation accident. There are many claims paid that are not justified. I know of an amusing accident, where a man's wife hit him with a baseball bat. He tried to get pay for that under the compensation act. We have all the sympathy in the world for the wife who uses a baseball bat to enforce her arguments, but the results should not be paid for under the compensation act.

Two things are important in eliminating fake cases. The first is the proper reporting of all accidents, and the second is improved methods of examination of new employees coming in. I think it is important, and you want to make sure that when new families come in, the incoming families are in a healthy condition. Another thing is keeping down the cost of legitimate accident as much as possible. Now the first thing with that is to see that the doctor's bill is reasonable. We want the doctor's bill to be small. Keep the doctor's bills as small as possible, but there is a more important feature than that, and that is seeing that the doctor gets the man back on the job as quick as he can. Your overseers and second hands particularly are in the best position to determine the character of an employee as to whether he is a type of person that will fake up a claim, or lay out too long, and through them you can help a great deal. Again, it is important that your legitimate accidents be reported promptly, so as to eliminate as far as possible high medical costs, especially on infection cases.

The third important feature is the elimination of accident. If you can keep your accidents down to a minimum, you of course will not have much of a cost under the compensation law. I happen to work for an insurance company, but I want to tell you frankly that this elimination of accidents should never be considered for the benefit to be obtained in insurance only. That is the smallest item of accident prevention work. It is the smallest from the dollars and cents standpoint. You will save more money in labor turnover and the satisfaction of your employees than you will ever save under your policy, but, where accident prevention is carried on with proper supervision, it will bring down your compensation insurance cost. Many plants will avail themselves of suggestions from time to time of ways and means of eliminating accidents, but I would say this, that when any suggestions are made that are necessary to the mill, if the overseers and second hands will spend as much time in figuring on how they can accomplish these things as they do on why they should not be done, there would be a great deal more work done in the accident prevention line. That is what is done generally. As soon as anybody has got a suggestion to make, they try to think of some reason why they should not do it. That is human

(Continued on Page 39)

Practical Discussions By Practical Men

Information Wanted.

Editor:

Will you please print the following questions in your Discussion Page:

Where does the yarn on a spinning frame receive its greatest pull, from the delivery roll to the bobbin or from the traveler to the bobbin?

What puts the most friction on the yarn, the weight of the traveler or the points of the traveler bearing against the ring?

The above is intended to be used as a basis for experiment, and any information thereon will be appreciated.

Foreman.

Answer to Ambition.

Editor:

I would like to help Ambition by answering his question, as I might want to know something myself most any time. But Ambition has not given sufficent information upon which to build a reliable cost sheet. It makes a big difference about the local conditions. Are you spinning in the North or in the South or in England? Do you use American peeler or Egyptian cotton? Is the staple 1½ inches or 1 7-16? Have you a small mill or a large mill? Are you operating one or two shifts? Is your process filling wind or warp wind? All of these things make a big difference and might make a difference of from 45 to 75 cents per pound, more or less. Please give more particulars.

Cost Finder.

Answer to H. B.

Editor:

You state your cloth is 27½ inches wide. Allowing 10 per cent for the take-up of the filling, this will increase the length of the filling from 27½ inches to 30¼ inches for each pick across the width of the cloth. You state that the length of the cut is 42 yards. The warp will take up at the least 5 per cent, so you must weave 44 1-10 yards of cloth. You have 66 picks per inch or 1996 picks per yard. 66×30¼=1996 picks or yards of filling. You have 12 picks of blue and 24 picks of white —total 36 picks, one-third of which is blue and two-thirds of which is white. 1996×44 1-10=88,023 yards of filling. In No. 34s filling there are (34×840=) 28,560 yards of yarn per pound.

88,023÷28,560=3.082×16=49 ozs.
1-3 of 49 ozs.=16.33 ozs. of blue
2-3 of 49 ozs.=32.67 ozs. of white

Total 49 ozs.

Designer.

Answer to Osnaburg.

Editor:

Osnaburg should try potato starch in the place of corn starch. This will penetrate the yarns more and add strength thereto. Do not dry the warps bone dry. Leave a very slight moisture in the yarn. Do not use the packing or compressing roll too hard. Let your warps breathe a little and have same elasticity left in the yarn. Have plenty of twist in the No. 7s waste yarn—a little more than the standard. But do not have over the standard in the good stock yarns. Make your yarns good as possible.

Slasher.

Answer to Cotton Spinner.

Editor:

The draft constant is found by getting the ratio between the front roll and the back roll without the draft gear. Draw a horizontal and place the gear on the front roll below the line and the crown gear above it together with the gear on the back roll, also the diameter of the front roll. The diameter of the back roll should go below the line. Now proceed as in cancellation. The answer will be the constant number. Example:

Crown Gear		Back Roll Gear		Diam. Back Roll
84	×	84	×	8

=336 Con. No.

Gear on Roll		Gear omitted		Diam. Front Roll
24	×	0	×	7

If a 36 draft gear is used and the constant number 336 be divided by same, the draft will be found to be 9 1-3. Or if the constant be divided by the draft wanted, the draft gear to be used will be ascertain thus: Draft per cent is 8 wanted 336÷8=42.

Overseer.

Comes Back at W. V. J.

Editor:

I have just read with some degree of interest W. V. J.'s friendly disagreement with my answer to Yarn Maker's question in the Bulletin of two weeks ago. I wish to say that the common processes in the manufacture of yarns of counts to as high as about 20s are the bale breaker, vertical opener, breaker, intermediate and finisher pickers, one process of carding, two processes of drawing, one of slubbing, one roving frame, and you spun from a single roving.

Now with these processes and

Carolinas and Georgia cotton, ranging in grades of from low middling to middling with an occasional bale of strict middling, and staple ranging in lengths of from 13-16 to 15-16 inch with an occasional bale of inch staple, the breaking strength of yarn may be as high as the figures given in the old standard such as I mentioned to "Yarn Maker." But there will be considerably more yarn to break below that standard than to break above it. With a good grade of cotton, full inch staple and upward, two processes of roving frames and yarn spun from a double roving the yarn may break at the new standard as mentioned by W. V. J. H. H. H.

Answer to Student.

Editor:

There are four kinds of draught, as most skilled mill men know. There is the figured draft, actual draft, practical and impractical draft.

The first is found by computation of the speed of the rolls as arranged by the draughting gears. See rule below.

The second or actual draft is found by measuring carefully a given number of yards which is fed in between the rolls, and then to measure the yards which came out after being drawn out between the drawingg rolls. For example, on a spinning frame the draught may be figured as exactly 8. Nor if you feed in 1 yard of roving and it comes out 8 1-0 yards instead of 8 yards, what is the cause? The fact is this: there is a slight stretching of the roving as it is being drawn in.

Again, the circumference of a roll is slightly more than 3 1-7 times the diameter. But this method is used to get the actual draft in yards or length. Now we will suppose you weigh a pound of roving and put it through and weigh it again, but get only 98-100 of a pound. What has become of the 2 per cent loss? This is the shrinkage caused by the clearer waste and the flyings of lint, dust, sand, etc., away from the yarn as being spun. So there are two kinds of actual draft, one of lengths and the other of weights, and the two combined gives us the actual number of yarn, while the computed draft gives us a theoretical draft and yarn number. The third draft is the practical draft. This means a draft that is neither too long nor too short. When a draft is excessive, it becomes an impractical draft. So we really have four kinds of draft. It is a fact that quite a number of mills operate with an excessive amount of draft by force of circumstances. The rule for finding the theoretical draft is as follows:

Crown Gear	Gear on the Back Roll	Diam. of Front Roll	Theoretical Draft	Actual Draft
80	40	8-8"		
			=6 9-100	6 15-100
20	30	⅞"		
Front Roll Gear	Draught Gear	Diam. of Back Roll		By length and weight

Carded Cotton—Practical draft for single roving and medium counts 6 to 8½. For double roving on medium counts 6 to 10.

Combed Goods—Fine work, double roving, long staple cotton, 60s to 120s, 3 to 12 draft.

I trust this will explain the matter. "Smart Alec."

Answer to Jake.

Editor:

To find the weight on the top rolls when the leverage system is employed is very easily ascertained by the following rules:

Measure the length of the lever from the point where the weight hangs on the lever to the point where it is hooked under the loop of the lever screw. Also measure the length of the lever from the point of contact at the lever screw, and the point of contact where the lever bears down onto the stirrup. This is the short arm, socalled, while the other measurement is called the long arm. Multiply the weight of the weight in pounds by the long lever, and divide the product by the short lever. The quotient will be the pressure brought to bear upon the top rolls. Example: Weight—4 pounds. The long lever is five inches. The short lever is one-half of an inch. 4×5=20÷½=40 pounds pressure on the top roll.

Now this pressure is distribution upon the top rolls by a system of other leverages as follows: If the stirrup hangs on a top saddle of this dimension, say, three inches long, you must measure the length of the saddle from the stirrup to the center of the bearing on the front top roll, and again from the stirrup to the center of the point of contact on the back saddle. Example: Distance from stirrup to front roll, one inch. Distance to point of pressure on the back saddle, 1½ inches. For convenience we will divide our saddle into five halves and proceed as follows: 40÷5=8×2=24 pounds weight on the front top roll because the weights is 3-5 near to the front roll than to the back rolls, total 40 pounds pressure with which we started. To ascertain the weight on the two back lines of top rolls, we must proceed in this way: Length of back saddle from point of contact on the back line to the point of contact on the middle line is two inches. Now if the pressure of the front saddle is one-half of an inch away from the middle roll, and 1½ inches away from the back roll, there will be 3-5 of the remaining 16 pounds bearing down on the middle line and 2-5 of the 16 pounds on the back line.

If the rolls are of the single boss type, by dividing each pressure by 2, and adding ½ the weight of each roll, the exact amount of weight on each end passing beneath each roll is fully ascertained. But to be still more exact, would be to split down the weight of each saddle together with the weight of the lever and the stirrup in order to get the grand total weight on each roll.

Technical.

North Carolina Third in Knitting

Chapel Hill, N. C.—North Carolina ranks third among the States in number of establishmen's for the knit goods industry, but has dropped to seventh place in total value of products with a yearly output of $29,058,000, and to seventh place in average number of wage earners in the industry, according to an article by Prof. Walter J. Matherly, of the School of Commerce, in the current number of North Carolina Commerce and Industry, published monthly by the University of North Carolina Press for the Extension Division.

There is another interesting article by Prof. Edmund Brown, Jr., who has completed an investigation showing how the S'ate's textile products are marketed. His conclusion is that "the percentage of North Carolina cotton textile manufacturers who market their own products is so small as to be an exception to the general practcie; and that because of the strength of an established marketing organization, because of apparent economics in overhead cost, and because of financial services offered, North Carolina textile products will probably be marketed through selling agents for many years to come."

Regarding the present status of the knit goods industry in the State, Professor Matherly finds that "the 131 active mills now in operation have a total capital stock of $33,994,485, consume annually 34,062,705 pounds of raw materials, and employ 208,946 spindles, 19,989 knitting machines, 2,417 sewing machines, 2,543 loopers, 2,948 ribbers and 1,040 cards. The number of employees showed an increase during the biennial period, the number now being 12,402.

Chief Types of Products.

Describing the types of product turned out by the knit goods industry in North Carolina, the figures for which are not complete for the early years and for 1921, Professor Matherly finds that in 1919 the value of hosiery products formed about 65 per cent of the total for the industry in the State, while in 1914 and 1909 the corresponding proportions were about 70 and 80 per cent, respectively. In 1921, the proportion of hosiery to other products remained about the same as in 1919.

"In 1919 North Carolina occupied second place in quantity and fourth place in value of cotton hose; second place in quantity and value of cotton half hose, and sixth place in quantity and fifth place in value of cotton shirts and drawers.

"In 1921 the State took first rank in quantity and third rank in value of cotton hose; second both in quantity and value of cotton half hose; fifth place both in quantity and value of cotton shirts and drawers." North Carolina "takes second rank in the quantity and value of knit goods, cotton, other than hosiery, second in quantity and third in value of hosiery. It stands second in quantity and value of half hose.

"Like the textile industry as a whole, the knit goods industry in North Carolina has experienced remarkable growth during the past two decades," Professor Matherly points out. "Starting with small beginnings about 1899, it has become one of the major industries of the State. There were in 1899 24 establishments with 191 sewing machines and 1,354 knitting machines, with 1,395 wage earners employed, with capital invested to the amount of $675,000 and with a value of product equal to $1,023,000.

Growth of Industry.

"Comparing the State's position in the industry in 1899 with that of 1914, there are many evidences of progress. The number of establishments increased more than 200 per cent, the number of sewing machines employed almost 1,000 per cent, the number of knitting machines more than 700 per cent, the average number of wage earners more than 400 per cent, capital invested more than 1,100 per cent, wages almost 800 per cent and value of products more than 750 per cent.

Progress From 1914 to 1921.

"From 1914 to 1921, North Carolina continued to make progress. In 1921 North Carolina again ranked third in the number of knit goods es'ablishments. She dropped to sixth place in the number of wage earners, sixth in the amount of wages paid and sixth in the value of products."

Professor Matherly finds that the rapid development of knitting mills in North Carolina is a logical step in the development of the Southern cotton manufacturing industry. The present trend as well as the trend in the immediate past has been "toward diversification.

Dinner for Mr. Reynolds.

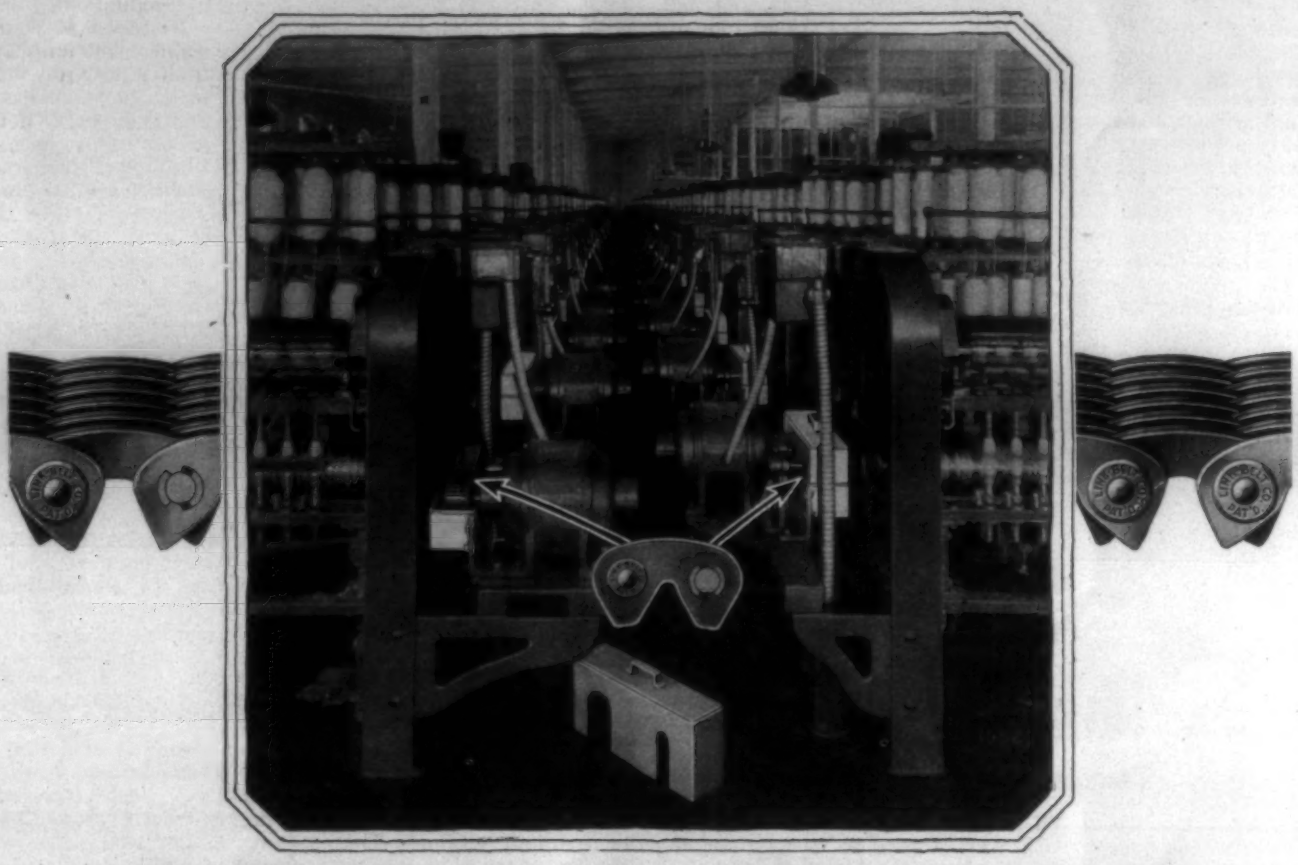
The Lockwood, Greene & Co. organization will give a dinner on Saturday night, March 28, to their president, F. W. Reynolds, who will be visiting in Charlotte at that time.

The dinner will be at the Charlotte Chamber of Commerce and the guests include about 125 machinery representatives, contractors, etc.

R. R. Penland Dead.

R. R. Penland, overseer of carding, Pacolet Manufacturing Company, Mill No. 4 New Holland Ga. was killed Sunday, near Dohlonega, Ga., when his automobile plunged over an embankment on the Dohlonga road.

Mrs. Penland and her two daughters who were also in the car was carried to a local hospital in Gainsville where it was found that Mrs. Penland's condition was serious. One of the girls has a broken collar bone. The other daughter who was driving the car escaped with slight bruises.



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Biggest Cotton Crop Since 1914

Washington, March 20.—American cotton growers, the Census Bureau reported today, produced the largest crop last year they have grown since 1914, the final ginning report showing 13,618,751 equivalent 500-pound bales. That is 3,479,080 bales larger than the 1923 crop.

In only one other year since the record crop of 16,134,930 bales, in 1914, has production been within a million bales of the present crop. That was in 1920 when there were 13,439,603 bales.

Production By States.

The production by States follows: Alabama, 985,221; Arizona, 107,575; Arkansas, 1,097,459; California, 77,-789; Florida, 18,961; Georgia, 1,003,-664; Louisiana, 490,505; Mississippi, 1,098,276; Missouri, 187,051; New Mexico, 55,200; North Carolina, 823,-279; Oklahoma, 1,509,175; South Carolina, 806,065; Tennessee, 356,161; Texas, 4,951,999; Virginia, 38,301. All other States, 12,062.

Big Increase Shown.

The 1924 crop, expressed in running bales, counting round as half bales, was 13,630,608, compared with 10,170,694 in 1923 and 9,729,306 in 1922. The 1923 crop, in equivalent 500-pound bales, was 10,139,671, and the 1922 crop 9,762,069. The Department of Agriculture's estimate of the 1924 crop last December was 13,153,000 running bales.

Included in the figures for 1924 are 18,838 bales which ginners estimated would be turned out after the March canvass. Round bales included numbered 314,309 for 1924, 242,307 for 1923 and 172,182 for 1922. American Egyptian cotton included 4,319 bales for 1924; 22,426 for 1923 and 32,824 for 1922.

Bale Weight Higher.

The average gross weight of bale for the crop, counting round as half bales and excluding linters, was 499.6 pounds, compared with 498.5 for 1923 and 501.7 for 1922. The number of ginneries operated for the 1924 crop was 15,473, compared with 15,299 for 1923.

Linters produced from the 1924 crop to the close of February amounted to 722,686 equivalent 500-pound bales, compared with 555,972 produced to that time from the 1923 crop.

February Cotton Spinning

Washington, March 22.—The cotton spinning industry operated at full single shift basis capacity during February, a Census Bureau report just issued shows. Activity was greater than in January, although the number of active spindle hours was smaller, due to a fewer number of working days.

Active spindle hours for February totalled 7,868,831, or an average of 208 per spindle in place, compared with 8,493,240,466, or an average of 224 for January this year, and 7,-304,102,954, or an average of 194, for February a year ago.

Spinning spindles in place February 23 numbered 37,875,960, of which 33,277,189 were active at some time during February, compared with 37,866,066 and 33,180,758 for January this year and 37,742,143 and 32,683,-786 for February a year ago.

The average number of spindles operated during February was 37,-865,700, or a 100 per cent capacity on a single shift basis, compared with 36,503,376, or at 96.4 per cent capacity in January this year and 33,879,600, or at 89.8 per cent capacity in February a year ago.

Consumption of Linters

Boston, Mass.—The amount of American cotton and linters available for movement into sight during the balance of this season is 1,735,000 bales, compared with 1,-778,000 at this time last season and an average of 3,559,000 in the past four seasons, according to Alston H. Garside, director of the cotton statistical service of the Merchants National Bank. The amount actually brought into sight after this time last season was 1,266,000 and in the past four seasons the average was 1,988,000.

The amount available for spinners takings during the balance of this season, according to Mr. Garside, is 5,888,000 bales, compared with 4,329,000 at this time last season and an average of 6,964,000 in the past four seasons. The amount actually taken by spinners after this time last season was 2,866,000 and in the past four years the average was 3,394,000.

Du Pont Rayon Co.

The du Pont Fibersilk Company, with plants at Buffalo, N. Y., and Old Hickory, Tenn., has changed its name to the du Pont Rayon Company. This is to conform with its recent adoption of the name "Rayon" for its product. This name has been adopted generally for products which heretofore have been known as artificial silks, the manufacturers and consumers feeling that, as this product is a distinct textile of many and varied uses, it should no longer bear the burden of being regarded as an "artificial" product.

The use of rayon is increasing so rapidly that the du Pont Rayon Company has started new construction at Old Hickory, Tenn., which, when completed, will duplicate the capacity of the plant at Buffalo. Work on the new construction was begun at about the same time that the original Old Hickory plant went into operation and it is expected that the entire productive capacity will be available within a few months.

Samples of Piece Goods in Amoy Market Available.

Samples of cotton and wool piece goods selling in the Amoy market have been received from Consul Webber, Amoy, China. These, together with price quotations thereof, will be made available upon application to the New York District Office, Bureau of Foreign and Domestic Commerce.

SOUTHERN TEXTILE BULLETIN

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The Atlanta Meeting

THE most important impression that we received from the meeting of the Operating Executives of the Georgia Mills at Atlanta on Wednesday of last week was that unless the mill men of North Carolina and South Carolina wake up, the day will come when Georgia mills will lead because of better educated superintendents and overseers.

There were approximately 150 superintendents and overseers present at the Atlanta meeting and practically every mill in Georgia was represented.

When the Spinners' Division met in Charlotte the previous week there was an attendance of about 165, whereas there should have been at least 300, and it was noteworthy that many mills within thirty minutes' ride of Charlotte had no one at the meeting.

In Georgia the mill presidents and treasurers insist upon the superintendents and overseers attending the meetings because they realize that the most efficient operation of their mills can only be secured from men who are wide awake and who are constantly striving for improvement.

Many of the officials of North Carolina and South Carolina mills have the same idea, but there are also many that make no effort to have their men attend the "practical discussion" meetings.

A short time ago a large mill had an opening for superintendent and wanted to know what we thought of a certain man who had applied for the position.

We told them that the man had apparently done very well but that we recalled that when a Divisional Meeting of the Southern Textile Association was held in his city he did not attend the meeting or allow any of his men to attend.

We stated that a man who had no desire to learn more about the business, with which he was connected, would soon be a back number and we advised the mill to get a more progressive man, which they did.

The mill man who goes to one of the Division Meetings of the Southern Textile Association or of the Operating Executives of Georgia Mills and comes away without getting an idea that will aid him in more efficiently operating his mill is dead from the neck up and the man who does not go because there is nothing for him to learn, is already a back number.

It is not so much what is learned in the meetings as the quickening of the minds of those who attend and the results of later investigation of the ideas advanced.

If the superintendents and overseers of the South continue such meetings as those recently held in Charlotte and Atlanta, the day will come when the South will have the most efficient operating men in the world and will lead the world in cotton manufacturing.

The men who will fill the big jobs of the future will be those who are willing to discuss their problems with their neighbors and are forever seeking knowledge.

The Atlanta meeting was featured by a discussion of the advantage of spraying a special oil upon cotton in the opener hopper.

The statements of those who were using such oil is given in the stenographic report of the meeting, printed in this issue, and show astonishing results.

The entire discussion at Atlanta was intelligently conducted and those who took part showed that they were keenly alert to learn things that might aid in the operation of their mills.

Unless the mill men of North Carolina and South Carolina awake, the day will come when it will be a recognized fact that more competent operating men can be secured from Georgia.

Aunt Mary Discusses Child Labor Amendment

"AUNT MARY," a special contributor to the Ohio State Grange Monthly, has the following to say in that publication:

"A few days ago I notised where sum uplifter sez that they're goin' to fite fer seven years but what they pass that child labor amendment to the constitushun; I'm a uplifter myself but I'm of the opinion that it'll be seven times seven years before they pass sich a government ownership ov children plan as that as it is now writ. Hiram is agin it as a principal in government, but he also sez, sez he, 'Ther may be sum children overworked, but the most harm is done them young lives by the things they do when they ain't doin' nothin'."

Wild Scramble Predicted

THE following statement by the Manchester (Eng.) Guardian relative to the slowness of the cotton goods demand in India may also apply to the possibilities in the country if a cotton crop scare should cause the merchants to decide to fill their shelves:

"The only explanation of the continued shyness of India is that the native importers and dealers have been completely unnerved by the danger of losses and that they are holding off the market as long as they possibly can. According to historical precedent they will, one of these fine days, all turn round together and start a wild scramble for early deliveries at high prices. On the Manchester market it is popularly held that this postponed and accumulated demand reveals itself by Grand National day at the latest."

Better Yards

IT is human nature to desire beautiful surroundings, and experience has shown that evidences of care by mill management has an effect upon the care shown by the employees.

Operatives that will stoop to pick cotton from the floor of a well painted and well kept room will let it be tramped into low grade waste in a room with bad floors and dirty walls.

Operatives approaching a mill with dirty and ill kept yards have not the same incentive to do good work and produce a high class product as have those who enter through a yard filled with flowers and shrubs.

It costs very little to plant flowering shrubs around a mill and this is the time of year to do the work.

The Van Lindley Nursery at Greensboro, N. C., or the Howard-Hickory Nursery at Hickory, N. C., will gladly furnish their catalogue and also suggest the shrubbery that is most suitable to mill premises.

Shrubbery once planted rarely has to be replanted and requires very little attention.

There are many mills that could, with a very small expenditure, greatly improve the appearance of their mills.

The effect of well kept mill yards, upon the public, is also worthy of consideration.

Idle Spindles

THERE is a general impression that all the cotton mills in the United States are now in operation, but such is not the case, and recent statistics show that during February, 1925, there were 4,598,750 spindles entirely idle and dormant, not counting those that operated on part time.

The idle spindles divided by sections were as follows:

Southern States	465,170
New England	3,793,956
Other States	379,646

In the leading States North and South the idle spindles were:

Alabama	37,930
Georgia	66,910
North Carolina	135,884
South Carolina	36,038
Rhode Island	415,252
Massachusetts	2,856,864
New Hampshire	344,870
Maine	26,224

These figures show that the number of spindles in operation in the United States in February, 1925, was almost exactly the same as the number in this country prior to the war.

Our population has probably increased 8,000,000 since 1916 and we are exporting far more cotton goods than formerly, but, although our operating spindles are not in proportion to our increase in population, there is no active demand for cotton goods.

The increased consumption of cotton goods by the automobile trade is, in our opinion, a great deal more than the amount that consumption has been decreased by the substitution of silk and rayon for cotton.

We are confronted with a problem to which no adequate solution or explanation has been given.

Terrell Machine Co. Name Omitted

IN printing the names of those who furnished the entertainment at the recent meeting of th Sepinners' Division of the Southern Textile Association the name of the Terrell Machine Company was accidentally omitted. It is a coincidence that the same omission occurred on the occasion of the last textile meeting in Charlotte.

When any request for entertainment funds is made the check of the Terrell Machine Company is always received by return mail but it seems that by a peculiar ill fate the printer omits their name.

Personal News

I. S. McManus has resigned as superintendent of the Red Springs Cotton Mills, Red Springs, N. C.

B. J. Dobbins has resigned as superintendent of the Rex Spinning Company, Ranlo N. C., because of ill health.

H. D. Harvey is now superintendent of the Aragon Mills, Aragon, Ga.

M. T. Long is now night overseer weaving at the Wade Manufacturing Company, Wadesboro, N. C.

R. F. Thompson, of West Durham, N. C., is now with the White Oak Mills, Greensboro, N. C.

William Hensley, of the Erlanger Mills, Lexington, N. C., has accepted a position at Altavista, Va.

C. M. Cranford has become second hand in spinning at the Chadwick-Hoskins Mill No. 1, Charlotte.

J. A. Coley has resigned as secretary and treasurer of the Red Springs Cotton Mill, Red Springs, N. C.

E. B. Williams has accepted a position as overseer of carding at the Liberty Mills, Dallas, Ga.

N. L. Dawkins has resigned as overseer of weaving at the Red Springs Cotton Mills, Red Springs, N. C.

E. S. Knight has resigned as night overseer of weaving at the Red Springs Cotton Mills, Red Springs, N. C.

N. C. Williams has resigned as night second hand in weaving at the Red Springs Cotton Mills, Red Springs, N. C.

H. B. Jennings, of Lumberton, N. C., has been appointed general managen of the Red Springs Cotton Mills, Red Springs, N. C.

F. D. Frissell, of Rock Hill, S. C., has become superintendent of the Red Springs Cotton Mill, Red Springs, N. C.

J. Y. Jerrell, of Wilmington, N. C., is now overseer of weaving at the Red Springs Cotton Mill, Red Springs, N. C.

C. L. Wyrick has been promoted to night second hand in weaving at the Red Springs Cotton Mills, Red Springs, N. C.

F. H. Head has become night overseer of the cloth and finishing room at the Wade Manufacturing Company, Wadesboro, N. C.

C. J. Waldrop has resigned as second hand at the Gaffney Manufacturing Company, Gaffney, S. C., to accept a similar position at the Union-Buffalo Mills, Union, S. C.

C. E. Humphreys has been promoted from day second hand to night overseer of weaving at the Red Springs Cotton Mill, Red Springs, N. C.

F. W. Waldrop, from the Judson Mills, Greenville, has become overseer of spinning at the Drayton Mills, Drayton, S. C.

H. C. Byars has been promoted from section hand to second hand in carding at the Drayton Mills, Drayton, S. C.

Charles Campbell has resigned as overseer of spinning at the Chadwick-Hoskins Mill No. 2, Charlotte, to enter the grocery business.

P. L. Cranford has been promoted from second hand in spinning at the Chadwick-Hoskins Mill No. 2 to overseer of spinning.

John Shipman has resigned his position at the Ella Mills, Shelby, N. C., and is now located at Spindale, N. C.

W. W. Kinsey, of Lancaster, S. C., has accepted the position of assistant overseer of No. 1 spinning at the Baldwin Mills, Chester, S. C.

J. A. Ross, formerly overseer of weaving at the Cascade Mills, Mooresville, N. C., now has a similar position at the Williamson Mills, Charleston, S. C.

W. W. McDowell, who has been with the Springstein Mills, Chester, S. C., for 32 years and who for 19 years has been overseer of finishing, has resigned.

T. T. Taylor has resigned as second hand in carding at the Dunean Mills, Greenville, S. C., and accepted a position at the Lancaster Cotton Mills, Lancaster, S. C.

A. L. Cranford has resigned as second hand in weaving at the Dacotah Mills, Lexington, N. C., to become overseer weaving at the Fountain Mills Tarboro, N. C.

W. K. O'Daniel has resigned as second hand in carding at the Drayton Mills, Drayton, S. C., to accept a similar position at the Duneon Mills, Greenville, S. C.

C. E. Green has resigned as second hand at the Woodside Mills, Fountain Inn, S. C., to become overseer weaving at the Blue Ridge Manufacturing Company, Lanrum, S. C.

Phillip Marsden, superintendent of the Howard Bros. Manufacturing Company, Worcester, Mass., who has been spending a vacation at Pinehurst, N. C., spent Tuesday of this week at Charlotte.

J. D. Buice formerly superintendent of the Chadwick-Hoskins Mills, Pineville, N. C., has accepted the position of superintendent of the Rex Spinning Company, Ranlo, N. C.

A. T. Donaho, formerly master mechanic and engineer at the Union Division, Consolidated Corp., LaFayette, Ala., but more recently with the Cole Enginering Company, Chattanooga, Tenn., is now master mechanic at the Bradley Manufacturing Company, Columbus, Ga.

MILL NEWS ITEMS OF INTEREST

Rock Hill, S. C.—The Carhartt Cotton Mills will erect 16 additional houses in their mill village.

Spindale, N. C.—The Horn Company has awarded contract for humidifier equipment to The Bahnson Company, Winston-Salem, N. C.

Huntsville, Ala.—The Aycock Hosiery Mill, under construction here, is expected to be ready for operation the first week in April.

Rougemont, N. C.—Recent reports that J. A. Long and associates of Roxboro, N. C., would biuld a new mill here have been denied by Mr. Long.

Grensboro, N. C.—The Proximity Manufacturing Company, has let contract to W. M. Welch, Greenville, S. C., to build a concrete warehouse of 90,000 square feet capacity. It will be used to store cotton and the finished product of the mill.

Enterprize, Ala.—The Enterprize Cotton Mills will replace 100 plain looms with the same number of 40-inch Draper looms, and will rearrange the machinery in the weave room. Robert & Co., Atlanta, are the engineers.

Boone, N. C.—The Boone Knitting Mills have been incorporated with a capital stock of $40,000 by C. S. Grove, Hickory, N. C., W. H. Cragg and W. M. Cook, of Boone.

Griffin, Ga.—Several New England mill companies are considering locating a mill here, according to local reports. The Chamber of Commerce is handling a large number of inquiries relative to the advantages of cotton manufacturing in this section.

Oklahoma City, N. C.—E. B. Hook Jr., of the Atlanta office of Lockwood Greene & Co., is here to make a survey of several sites relative to building a mill here. The matters is in the hands of the cotton mill of the Chamber of Commerce, of which E. E. Barbee is chairman.

Lanett, Ala.—The West Point Manufacturing Company, will build at the Lanett Division here, a new cloth warehouse, 4 stories and basement, 100x120 feet. It will adjoin the present cloth room and will be equipped with elevators. Robert & Co., Atlanta, are the engineers.

Little Rock, Ark.—J. D. Newton local attorney has been in Fort Worth, Texas, where he conferred with mill owners relative to the establishment of a cotton mill here. The Fort Worth men, he says plan to establish several mills west of the Mississippi and have already several plants in Texas.

Dallas, N. C.—Dorothy Manufacturing Company has given contract to The Bahnson Company, at Winston-Salem, N. C., to replace their old humidifiers with a new Bahson system.

Greenville, S. C.—Parks-Cramer Company, of Charlotte, N. C., have taken contract for the installation of additional humidifier equipment in the Monaghan Plant of Victor-Monaghan Company.

Greensboro, N. C.—The Southern Silk Mill, which has just been incorporated here by J. G. Bently and A. Reitsman, of Paterson, N. J., will establish a silk plant. The site of the old Andrews Paper Container Company, has been secured. The mill will be equipped for making silk broadcloths and other fabrics.

Durham, N. C.—No information as to whether or not the Erwin Mills will move their plants outside the city limits, as recently reported, can be secured from the mill officials. Continued reports to the effect that the company is buying large tracts of land near here and at Hillsboro for the purpose of building a large new mill community cannot be verified.

Hillsobro, N. C.—It is reported here that the Erwin Mills, of West Durham, have purchased a large tract of land near here and will build one of the largest mills and villages in the State. The land bought includes water a power site that could be developed to produce a substantial amount of power. It is believed here that the reports relative to the mills are in connection with the reported intention of the Erwin Mills to remove their plants from Durahm, but no official statement has come from the mill owners.

Greenville, S. C.—A meeting of stockholders of the Oakland Mills has been called for April 21 at Newberry to consider the question of increasing the capital stock from $500,000 to $760,000. The directors also expect to recommend to the stockholders the signing of a contract with the Kendall Mill, Inc., for that concern to take the entire output of the mill at a guaranatted profit. Hospital gauze will be manufactured in the event the contract is closed.

The proposal which is to be placed before the stockholders at their meeting is to increase the number of shares of stock to 7,600, of which 5,100 will be 7 per cent preferred and the remaining 2,500 will be common stock.

The first semi-annual dividend of 3½ per cent on the preferred stock will be paid July 1, 1925, under the proposed plan.

Mooresville, N. C.—A deficit of $294,248 is reported by the Mooresville Cotton Mills, of Mooresville, N. C., acording to the company's financial statement as of December 31 1924. The company's balance sheet shows current liabilities of $1,425,467. Of the former $1,425,298 is in inventory and of current liabilities the sum of $,340,711 is for notes payable.

Smithfield, N. C.—Fire of unknown origin totally destroyed the Ivanhoe No. 1, with the exception of the engine and boiler room. The loss is estimated at $350,000, covered by insurance.

About three weeks ago the mill was damaged by fire to the extent of $35,000, but was saved by the sprinkler system. This failed to work when falling timbers cut off the pipes leading to the water tank. The Ivanhoe was the oldest mill in this county, having been established in 1900 by the late W. M. Sanders.

Kingsport, Tenn.—Installation of machinery in the new Borden Mills has been started, the first shipment of spinning frames having been received last week. All of the machinery for the mill, which is to have 88,000 spindles and 1,450 looms, will be shipped direct from the company at Fall River, Mass.

Construction work on the building is nearing completion. Flooring is now being laid, motors, shafting and pulleys are now being installed. The group drive will be used on looms, cards, warpers and slashers. Four-frame drives will be used in drawing, roving and spinning.

Salisbury, N. C.—Salisbury's newest textile plant will soon be in operation acording to P. C. Wood, local contractor who is erecting the factory building for the Wallace Wilson Hosiery Company of Philadelphia.

The plant is situated on the main line of the Southern Railroad, at the corner of Steele street and Lexington Avenue and when completed will modern throughout. The presstructure is only to be one story in height, however, the present foundation is capable of supporting two additional stories and those it is uinderstood, will be added as soon as a sufficient supply of labor can be trained to justify the expansion. The present building is expected to be ready for occupancy by May 15th, 1925, and it is the plan of the company to have the machinery on the ground ready for immediate installation so no time will be wasted in getting the plant in operation. The company will begin operations in

the new building on or about May 16th and will employ 200 to 250 girls from the beginning. This force will be added to as rapidly as help can be trained to make hosiery.

The Wallace Wilson Hosiery Company is owned and controlled by Messrs. Wallace and William M. Wilson of Philadelphia who have been in the hosiery business for, approximately forty years.

Belgian Consumption of American Cotton Increases.

The consumption of American cotton in Belgium is increasing, and according to Ghent brokers this tendency to turn from the Indian staple in favor of American is by no means finished, according to report from the office of American Commercial Attache at Brussels. Consumption of cotton by Belgian spinners during the six months periods were as follows: Ended January 31, 1924—American, 61,390 bales; Indian, 80,987 bales; miscellaneous, 5,813 bales; ended July 31, 1924—American, 59,950; Indian, 82,462; miscellaneous, 7,366; ended January 31, 1925—American, 69,351; Indian, 75,147; miscellaneous, 5,833.

A Puzzle Ad.

A unique advertisement by one of our oldest friends appears in our pages this issue.

An advertiser spends his money because he thinks he has something which will be of benefit to certain of our readers. But it is always a question with him whether the announcement will be seen. If not seen the readers will not be informed and the advertisers wastes his money. Many devices have been adopted to attract the reader's attention, such as large displays, colored insert, marginal embellishments, pictures, etc. But even if these are noticed by the man to be attracted he may not be ready to act upon the invitation extended by the announcement.

This old friend, whom we must not name, has hit upon the idea of forming a picture puzzle of his ad and offers a reward for its solution if accompanied by a description of the characteristics of the advertised article.

To make it still more quzzling the ad is not signed; but since the subject of the ad is identified with the manufacturer who has been before the textile trade for twenty years and by reasons of his uncommon style of advertising is known to all our readers, this part of the puzzle should present no particular difficulty.

A solution of the puzzle is to be rewarded by a prize, but the greatest reward will be in the realization of the product in question.

Dixie's Progressive Textile Club Banquet

Chattanooga, Tenn.—The home of Mr. and Mrs. T. B. Moore, superintendent of the Dixie Mercerizing Company's Spinning Mills at Chattanooga, Tenn., was the scene of one of the most enjoyable social occasions of the season, when they entertained the members of the Progressive Textile Club and their wives.

The club members are composed of the office force, superintendent, overseers, second hands and section men of this textile plant.

The home was especially arranged for the occasion and at 7 o'clock all the guests were invited into the dining room, where a three-course dinner was served.

After the dinner all assembled in the big living room, where Mr. Moore and his daughter entertained with some special music which the club always looks forward to on these occasions.

Living Conditions At West Point

(By Harlee Branch in Atlanta Journal)

One of the largest groups of textile mills in the South is that of the West Point Manufacturing company, of which George H. Lanier is president, which has a capital stock of $7,200,000, and property valued at $15,000,000. These mills are located in their own villages in each of which they maintain kindergartens, auditoriums, picture theaters, lipools, playgrounds and exceptional pools, playgorunds and exceptional schools. One of these schools, that at Lanett, was built at a cost of $200,000 and is as up-to-date as can be found anywhere. All have excellent schools, the combined enrollment of which about 4,000, with 125 teachers.

The mill villages are but a short distance from West Point over the Alabama line. The group comprises the Lanett Mill, the Shawmut Mill, the Langdale Mill, the Fairfax Mill, the Riverdale Mill, the West Point Utilization company and the West Point Power company, which is a hydroelectric concern supplying power to the various mills and current for lights in West Point and the city of Lanett, Ala.

This group of mills operate 185,000 spindles, 4,500 looms, employ 5,000 persons, have annual payrolls of $3,500,000, an annual consumption of 110,000 bales of cotton, and their annual production of manufactured goods is 50,000,000 pounds. Chief products of the mills are ducks, drills, twills, sheetings, crashes and towels.

The West Point Utilization company is one of the largest and most modern waste plants in the country. The growth and development of the textile waste business in the past decade has been phenomenal, as new sources of utilization for the various grades are constantly being discovered. Out of every five hundred-pound bales of cotton only 450 pounds reaches the yarn or fabric. The other ten per cent is what is incorrectly referred to as "waste."

Not only does West Point Utilization company handle the textile by-products from the mills of West Point Manufacturing company but also from scores of other mills throughout the South. As the waste is received it is sorted, cleaned, standardized as to grade and rebaled, and sold all over the United States, the larger part of the better grades finally finding its way into yarns and coarse fabrics, the lower grades being used for batting and felting and other purposes.

The Lanett Bleachery and Dye Works, of which George H. Lanier is also the president, bleaches and dyes coton piece goods. It has a dyeing capacity of 150,000 yards a day and boasts the largest sulphur dye house in the United States. In this industry there are 200 employes.

Splendid living conditions obtain in all the mill villages. The houses of the operatives are attractive and commodious and are situated on large lots with lawns. In each village are several churches, some of them handsome brick structures, and on every hand one is impressed by the air of contentment and happiness. The mills maintain a fine dairy in order that their employees may be assured of a plentiful supply of pure nourishing milk. A lengthy article could be written around the humanitarian work done by the West Point Manufacturing company for its employees.

Within 18 miles of West Point is the Bartlett Ferry hydroelectric development of the Columbus Electric and Power company.

Rayon and Ratine Yarns Decorate Fall Flannels

Smaller, neater work as compared with their spring and summer lines, yet no less colorful, characterizes the fall offerings of fancy cotton and wool flannel dress goods of the Lorraine Manufacturing Company. The stripe patterns remain the source of most of the new fall styling, but there has been an obvious effort to get away from the Roman and other of the more extreme effects. Sharing attention with the stripes is an increased range of check and plaid variations.

Dyed rayon ornamentation is employed in the fall flannels to an increased extent, along with other fancy yarn decoration such as two-tone twisted, raised and ratine effects. There are several stripe patterns in which narrow parallel bars of three, four and seven colors are grouped together. As a rule, each of the sub-stripes is edged individually with some sort of fancy yarn decoration.

White rayon twisted with a colored yarn is used for both edging the stripes and ornamenting part of the ground in several instances. One such number has three-quarters of an inch of gray, outlined with an edging of black and silver yarn and decorated one-quarter inch in from each edge with a cord of red and silver yarn. Completing the stripe is one-half inch of tan, three-eighths of blue and another one-half of tan. This forms one repeat, the whole being applied in various color combinations.

Described as one of the most promising numbers, is a stripe consisting of seven-eighths of an inch of gray, edged with a faint green yarn and centered with a quarter-inch band of blue. The blue center band is edged with gold and slightly heavier than the outer green edging. The gray half of the stripe is alternated with a stripe of red, of equal width, completing the repeat.

Considerable fancy yarn work is used in another pattern, similar to the above. In this, there is a stripe, 1¼-inch wide, divided into seven sub-stripes—green, brown, orange, brown, orange, brown and green. The two outer stripes are edged with modified boucle yarn of white and a touch of red. The three inner stripes are edged with black and white ratine yarns. This pattern is separated by a stripe of blue, 1⅜-inch wide.

Using some of the stripe patterns described above as foundation, a number of check effects are formed by introducing horizontal bars in the filling. There are other numbers designe despecially for check effects. Among these is a pattern with vertical stripes of blue, one-inch wide and surmounted by eight bars of white rayon, equi-distant; then two inches of gray between the next blue stripe. Crossing the vertical stripes are horizontal bars of blue yarns, one-quarter inch apart. This idea is carried out in various color combinations. — Daily News Record.

Index To Advertisers

Where a — appears opposite a name it indicates that the advertisement does not appear in this issue.

Discussion at Georgia Meeting

(Continued from Page 22)

nature; it is something new to them. If you will get behind this thing, and push it, you will find there is a great deal in it.

Most of your plants have safety organizations. What is the use of a safety organization? Safety organizations do make suggestions, but above all they should be the means of educating the individual employee. Often a man is put on a job without being thoroughly aware of the hazards of the job. Many of you take it for granted that because a man has worked around certain machines a long time he should know these hazards. It is the duty of the organization to see that the men are properly instructed in the hazards to which they are exposed.

In closing, let me suggest that you can cut down your cost of medical treatment and medicines in most cases. I don't want you to take anything from my talk to the effect that we would suggest to you the use of cheap doctors. A cheap doctor is like cheapness in any other line. A cheap doctor might cost you a lot of money in the long run.

The last thing I want to say is just this—when the rates are being reduced, it is an indication that the accidents and the cost of compensation in plants have warranted it, and everybody is happy. In that case insurance companies have made money; the lants are getting legitimate insurance rates; and everything is sitting pretty. When rates are going up, everybody is losing money. Accidents have cost too much; the insurance companies have had to spend more money than they should; and it leads to dissatisfaction all the way around.

If you gentlemen will watch your own employees, watch your overseers, foremen and second hands, and get their co-operation in this thing, it will certainly have effect not only on your individual plants but on the cotton mill industry at large.

Now my talk has just taken four minutes, and I hope I have given you some information. That is all I have to say to you, gentlemen. I thank you. (Applause.)

W. W. ARNOLD, JR: That ends our morning session, gentlemen.

ROBERT W. PHILIP, Atlanta: At 12:30 come back to the dining room. We are going to have lunch here. If you have not a ticket, you are in a bad fix. Come back at 12:30.

The morning session was then adjourned.

LUNCHEON.

Luncheon was served in the dining room of the Henry Grady Hotel. At the luncheon Marshall Dilling, of Gastonia, N. C., president of the Southern Textile Association, addressed briefly the meeting. Mr. Dilling commented favorably upon the interest the men seemed to take in the discussion, and complimented the Textile Operating Executives upon the discussion on Carding they had had at the morning session.

Mr. Dilling also invited all those present to the weavers' Meeting, to be held at Anderson, S. C., on the 15th of April. He stated that he felt that they would profit by hearing the discussion of weave room economies at this meeting.

Mr. Dilling's talk was very favorably received, and he extended the greetings of the Southern Textile Association, of which he is president.

During the luncheon there was delightful music, and a solo by one of the artists.

AFTERNOON SESSION.

The afternoon session was called to order at 2:00 o'clock by W. W. Arnold Jr., Manchester, General Chairman.

GENERAL CHAIRMAN ARNOLD: Please come to order, gentlemen. I would like to say here that we are very agreeable surprised to see such a large atendance. I think the registration is something over 156 this morning.

We certainly appreciate the interest that all of you have shown in the discussion. It could hardly be expected to be otherwise, however, when we had such an able leader as Mr. Franklin, of Augusta.

The first busines in order this afternoon will be the election of an Executive Committee to take the place of Ira B. Grimes, of LaGrange, whose term expires at this meeting. Any of you are entitled to make nominations, if you see fit. I would suggest that we have open balloting, as we have no arrangement for having a secret ballot. The meeting is now open for the nominations for Executive Committeeman.

Frank S. Dennis, of LaFayette, was placed in nomination for this position, and his nomination was variously seconded. On motion the nominations were closed, and Mr. Dennis was unanimously elected as Executive Committeeman to succeed Ira B. Grinmes, of LaGrange, whose term expired at this meeting.

Cries of Speech, Speech.

Mr. Dennis did not respond with a speech.

GENERAL CHAIRMAN ARNOLD: As he has refused to make a speech, I won't make one for him.

I would like to say I enjoyed very much Mr. Dilling's talk at lunch in discussing the possibilities and opportunities in the Textile business in the South, especially for the coming year, and the years to come.

It strikes me in my limited experience that only two things are wrong with the textile industry in the South, and those are the high cost of manufacturing and the low selling prices of goods. If we can ever overcome those two things, I think we will all make a little bit better showing. It undoubtedly is a fact that I believe we have been over-producing and forcing sales in the past year or two in the textile industry. I think really the mills have done lots to cut their own throats in the last year or two. Selling agencies want volume, and we want to give it to them, and we give

a lot of excuses as to why we run our lines and others, when we have not orders to run on, and I think that is a very serious question, worthy of very serious consideration by all of us fellows in the manufacturing end in the next year or two.

We can probably have influence on our selling agents or representatives by working out individual costs systems, and letting the presidents and managers of the miils know more accurately what the different fabrics and yarns cost. We have an average cost system, and we kind of guess at the fine yarn number, or the low one, or the light weight fabric, and the heavy weight fabric, based on our average cost.

I think a good many mills are not properly distributing their overhead, and working out an individual cost system, they have ben fooling themselves, and on a lot of fabrics they make a lot of money, and on others they lose it, and at the end of the year they make a better or poorer showing as the case may be. I thought I would like to get that out of my system. I think we could get up more accurate systems instead of using the rule of thumb method, and getting it on an average, and we could furnish this to the executives of the mills and the selling agents, so that they could get a more intelligent idea of what it costs to produce the different fabrics, and make a drive to sell those at legitimate profits.

I put that out as a suggestion because I think that over-production and mass-production and forced sales have done more to make us sit up nights, and wonder how we are going to come out at the end of the year, than anything else.

This afternoon we will have a discussion on spinning, led by Frank S. Dennis, Manager Consolidated Textile Corporation, LaFayette, Ga. We hope you will join in and discuss this subject and ask and answer questions under the leadership of Mr. Dennis as you did this morning under the leadership of Mr. Franklin in our carding session.

SPINNING.

(Discussion led by Frank S. Dennis, LaFayette, Ga.

I think you fellows are going to feel like reconsidering this election, and I will give you the priviledge of doing it after you get through with this discussion this afternoon.

MR. DENNIS: Let everybody be as quiet as he possibly can. I appreciate very much the honor, that you have conferred upon me in electing me to the Executive Committee, and I pledge you the very best I have in the interest of the organization.

Circle of Travelers.

The first question we are going to take up this afternoon is one, that interests us all very much, some of us from the fact that we perhaps have seen results, that other people got from making tests along these lines; and to others because of the fact that it is not generally known, or that it was not known to them up to a short time ago, that the difference in the circle of a traveler made very much difference in the results gotten on spinning. I find out that it makes a great difference. We are going to put that question first because I believe there is more genuine interest in it, and we will devote as much time as we feel like it needs to this one subject:

"Have you made any experiments with the different circles of travelers? Do you find it an advantage to use a traveler gauge to determine the circle of the traveler?"

I would like to ask those of you, who have made tests of the different circles of travelers, to hold up your hands. (Only a very few.) I would like to ask those, that have been able to check the circle of the traveler with a gauge to hold up their hands. Only a very few.)

We will throw this question open, and I want everybody to respond just the same as they did to Mr. Franklin's leadership this morning because I confess I have got a hard job on my hands. Mr. Franklin certainly kept the interest alive in the discussion this morning. I think we could all leave here now, and feel like we had had an interesting meeting.

Let's get somebody to start the ball rolling on this traveler question. Somebody, that has made tests on the circle of travelers, and has used a gauge, get up and tell us what results you get from it. How about you Mr. Lehmann?

MR. LEHMANN, LaGrange: I found out like yourself that there was a great deal of difference. At one time on certain numbers we were running bad, and I found out that that was the reason for it. After we got a traveler gauge, and experimented, and found out what was the difference in the circles of travelers, we found out what was the matter. After we determined that fact, we settled on a particular circle of traveler. We had a hard time getting a gauge, but I finally borrowed one, and had one made from it. Since that we have had no trouble with variation in circles.

MR. DENNIS: Will you describe that gauge for the benefit of those, who have not gotten hold of one?

Traveler Gauge.

MR. LEHMANN: It is a little piece of steel about as long as your finger, the top side of which is flat, and then it is in different circles, some for ¾-inch circle, ⅞-inch, 1, and A-1, and on up. I borrowed one from a traveler man. It helped our spinning a lot by finding out just what circle was the best for our running.

At this point one of the gentlemen in the audience held up one of these little pieces of steel, and said "Here is one, if you want to see it."

HENRY D. MARTIN, Griffin: I have never had any experience with a traveler gauge, but I would like to speak along the line of the importance of accustoming ourselves to the use of a traveler gauge. There are a great many reasons why we should take more interest in this subject perhaps than we

have in the past. I think you will all agree with me that the traveler is the hardest worked piece of iron in our cotton mills today in proportion to its weight and size. It travels over a race course, which, while apparently smooth and even, those of you who have looked into the matter of rings, will find that a large proportion of our rings are not round and most of them are like the edge of a razor blade. If you will examine the ring under a microscope, you will find it is not smooth and even and burnished as the manufacturers tell us, but it is very rough, and it makes a big difference whether a traveler is perfectly round, whether it is thick and narrow, whether it is thin and wide, and whether it has a large or a small circle, and it is like that important question of oil this morning.

We are really all in school yet, when it comes down to the fine points of cotton manufacture. While I have never had any experience with the gauge, I bespeak for the traveler the importance of accustoming ourselves to using the gauge more freely than we have in the past, and finding out whether we are getting uniformity in the purchase of our travelers, whether we are getting them the right width and right thickness and right numbers, and whether we are getting the best results from the ring traveler simply because it is the hardest working piece of iron which we have in our mills. The traveler travels on an average of a mile a minute. That is about the speed at which it travels over this race course, the speed of an ordinary express train, and this course is not perfectly round. Manufacturers themselves will not guarantee a perfectly round ring. Hence the importance of getting travelers which are as near perfect as possible.

MR. DENNIS: What circle do you use on your rings and what flange have you?

MR. MARTIN: In our work we confine ourselves to circle 2.

MR. DENNIS: That is on a No. 2 flange?

MR. MARTIN: No. 2 flange.

MR. DENNIS: We have two answers here in which they say they use ⅝ circle on No. 1 flange and A-1 circle on No. 2 flange. How many are ⅝ circle on No. 1 flange ring, or know they are using that? (One.) How many use ¾ on No. 1? (Several.) How many larger than ¾? (Several.) How many use A-1 on No. 2 flange? (Several.)

MR. EDWARDS: I used that in years past, but I do not now.

MR. DENNIS: How many use larger than A-1? (None.) Are there any other questions to come up in regard to this?

G. A. FRANKLIN, Augusta: Every spinner has tried out some circle. Every spinner prefers some particular one. They may differ a whole lot. It seems to me the important thing to know is whether you are getting a uniform circle or not. Traveler manufacturers are reputable. Their intentions are good. We have traveler gauges in our plants, and I don't know that I am at liberty to say where we got them, but they are ours, and if anybody wants gauges, and cannot get them, we will loan them guages, and they can carry them to any reputable tool maker and have them made.

The help it has been to us is that sometimes they get mixed circles. Sometimes the circles are so close to one another, it is pretty hard to detect the difference, but when you have got a traveler guage, you are absolutely certain what traveler you are getting, and when we get a box of travelers, we take our box out and gauge them, and then when our traveler man comes around, we have got mixed travelers. He tells us that "I am very sorry; ship them back." I have no doubt it makes the manufacturer more careful in future shipments to any mill, if you get a proper gauge. The traveler manufacturer I am sure has no intention of mixing the travelers, but we all have more or less bad work to go out of our plants, and when you get this gauge, it puts you in a position to know what circle you are getting, and I think every mill should have a traveler gauge.

MR. DENNIS: I am sure everybody will appreciate the spirit in offering a loan of a gauge for making gauges for any mill that wants to get them. I am glad Mr. Franklin brought out the point that we should be sure that we are getting one particular circle, and unless we have some way to tell we never know whether we are getting it or not. The idea seems to be that, if we cannot check up on other things any closer than on travelers, the chances are we would not have our jobs. We have less control over that than almost anything that goes into our mills, and, as Mr. Martin says, there is no one thing more important. Some of the answers that came in said they didn't think it was necessary, and that they were getting good results without taking these precautions. I think it only fair that we should consider both sides, and I am going to ask somebody to bring out that feature, in case that is the way they feel about it. There are two sides to everything, and we have not but one side so far. Some of the answers that came in to the questionnaire were of the opinion that it was unnecessary.

MR. EDWARDS: I made that statement in my answer. However, I did not mean to convey the idea that it was not all right to check up. Personally I don't think I have ever had but one experience of that kind, and that came up probably five or six months ago. I sent samples to my traveler man, and he found that they were not uniform.

MR. DENNIS: Is there anything else to be brought out on this question of travelers? Mr. Phillips, can you tell us something about that?

W. L. PHILLIPS, Social Circle: I have made quite a good many tests of circles of travelers. I know that on No. 1 flange ring I find A-1 circle gives the best results. I have tried every circle on the market, and I also have a traveler gauge, and no box of travelers has ever been in my mill that would measure by the gauge the same thing.

MR. DENNIS: No two boxes?

MR. PHILLIPS: No one box. Any traveler maker will furnish you with different samples of travelers, and you can test them out yourself.

MR. DENNIS: What number of yarn do you have reference to, Mr. Phillips?

W. L. PHILLIPS, Social Circle: 22s. That does not make any difference about the number of yarn. I have tried it out on 40s. The No. 2 circle traveler has too much play in it. The A-1 hugs the ring a little closer.

MR. DENNIS: Will the rings of one manufacturer fit into the holes of another manufacturer?

MR. PHILLIPS: The rings are supposed to be the same thing.

MR. DENNIS: Can somebody acquainted with those things tell us about that?

Mr. QUINN, Atlanta: There is a variation in rings. There is bound to be.

Question: Will the rings of one manufacturer fit into the holes of anyone else?

MR. QUINN: They are supposed to be the same size, but they will vary slightly.

HENRY D. MARTIN, Griffin: I would like to ask what the difference is between A-1 flange and No. 1 flange or A-1 flange and No. 2 flange?

W. L. PHILLIPS, Social Circle: So far as I know, there is no A-1 flange. There is No. 2 flange and No. 1 flange. A-1 circle traveler is smaller than No. 2.

MAR MARTIN: What is the difference, mechanically speaking—1-1,000th of an inch?

MR. PHILLIPS: I don't know.

MR. DENNIS: Mr. Quinn, can you tell us about that?

MR. QUINN: It is just a smaller circle of traveler. Say 1½ circle for No. 2, and No. 2 circle is much larger that the A-1. With one you get a 45-degree pull on it, and the other you get a 90-degree pull on it. There is a gauge on that like on No. 1.

E. R. LEHMANN: Take a right new ring, and you have got to have a larger circle, and as your ring wears down, take up on your circle closer. It depends on the age of the ring. On a right new ring you should put on a larger circle, or as large a circle as the ring will take, and as the ring wears gradually come up on it. That has been my experience.

MR. DENNIS: Are there any other points to be brought out on this question?

W. L. PHILLIPS, Social Circle: I do not think that the circle of the traveler should ever be changed after once put on the ring. The traveler will wear its path on the ring, and, when you change it, you are running into trouble. Whenever a certain circle of traveler is put on a ring, when it is new, you should stay to that circle, and never change.

MR. DENNIS: We will pass to the next question. It is the first question listed on this questionaire under thesubject of "Spinning". The question is as follows:

"Which is better from a weaving standpoint on filling, running rail up fast and down slow or up slow and down fast? Which is better from a spinning standpoint, when running filling wind for warp?"

There was some confusion about that I think. The question was not understood by some, who answered it. The first part of the question is "Which is better from a weaving standpoint", leaving spinning out of it altogether. Let's take that up first, and then we will go to the spinning advantage, if there is any. Can somebody give us any informaon that?

A MEMBER: Our experience is that it is better to run the rail up fast and down slow. If the filling is going to slough at all, it is going to slough pretty quick. It is not going to slough as it comes back from the quill, but it is going to slough from the nose. Our experience is it is better to run the rail up fast and down slow. The way the filling is wound, if it is going slough at all, it is going to slough from the nose.

A MEMBER: We run ours up fast and down slow. We find, so far as weaving is concerned, one is about as good as the other, and that it does not make any difference, but we run ours up fast and down slow as best from the spinning standpoint.

MR. DENNIS: From a weaving standpoint it doesn't make any difference?

Answer: Yes, sir.

JOHN W. HOWARTH, West Point: What is the number of your yarn?

Answer: 34's.

G. A. FRANKLIN, Augusta: In one of our mills the Boss Weaver says that it does not seem to make any difference. In another of our plants, that runs coarser numbers, we have to run it down fast on the filling and up slow. The Boss Weaver in that plant contends that, if you don't run it that way, it makes what he calls a "snotty-nose filling." He don't do it from the weaving standpoint.

JOHN H. HOWARTH, West Point: It is the dwell at the top of the quill, that makes some people change from slow down to fast down. I agree with that gentleman over there that it is a little better from the spinner's standpoint to do it the other way because there is a little strain on the yarn.

MR. DENNIS: Is there any difference in the amount of yarn that a weaver has got to pull off, where you run it down fast, and where you run it down slow? Does it make any difference?

Answer: No.

MR. QUINN, Atlanta: From the weaving standpoint it is better to run it up slow and down fast. From the standpoint of weaving it will run better, and will not slough off, provided you have not got too much lost motion. If yu have too much lost motion, it will slough off even down fast.

Combination Wind.

MARSHALL DILLING, Gastonia: I have no weaving at the present time, but a few months ago we installed an automatic spooler, and the first thing we ran into was the

traverse. The spooler people claimed you couldn't run filling wind. We found we couldn't run warp wind on it. Since that time I happen to know of two or three other mills, that had similar experience. We had to adopt what is known as combination wind, made of warp cams and filling let-off. It starts down at the bottom of the bobbin, and runs up to within two inches of the top, and it makes the same length stroke from beginning to end. Those automatic spoolers run around 1,000 to 1,400 yards per minute. That is faster than the looms will take the yarn off. We found the only solution was to run the traverse down slow, so it would unwind up slow. Of course in winding down slow, that would wind up fast, and just the reverse in winding off. That may be of interest to somebody on account of the speed. The speed was what caused the difference. The bobbin was stationary of course, didn't knock from one side to the other, and had no tendency to knock off, but just simply the speed would cause it. In making experiments of this kind somebody may run into something of that kind. That is bearing along the same line.

MR. DENNIS: Is there anybody here from Canton? (No response.) Has anyone else anything to bring up on this question?

W. W. ARNOLD Jr., General Chairman: As long as we are discussing both phases of this question, I wou'd say that we have had a similar experience to that of Mr. Dilling. In spinning our warp yarn I ran a few frames on filling wind for six or eight months or a year trying to find out the proper tension for my spoolers. We finally changed them by a suggestion to a combination wind, and we find the combination wind on warp is a great deal better. We can speed up the frames 10 per cent higher.

MR. DENNIS: I think we are all pretty generally agreed, as far as rail spinning is concerned, there is less strain on the warn, when the rail goes down slow.

MR. THOMPSON: How does the gentlemen reduce the speed of his traverse with a warp cam?

MARSHALL DILLING, Gastonia: Making a warp cam, a two-in-one or three-in-one. You can make a filling cam the same way, if your stroke is long enough. It is not the regular warp cam that runs up and down the same speed, but you have to have two-in-one or three-in-one. It is a combination cam that runs it up one way fast and the other slow. You change it, but it is the way it is built; it takes it longer to make it one way than it does the other.

W. W. ARNOLD, JR., General Chairman: It is not necessary to even change your cam. You can run the same warp cam and you get the same speed all the time.

MR. EDWARDS: Can you get as much off your bobbin with that combination?

MR. ARNOLD: More. You have no change in the rail at all. You don't get that quick change. You have the same all the time and you shorten your stroke.

MR. DENNIS: We will pass to the next question. I think that question has been pretty thoroughly covered. The next question is:

"What is the best method of doffers piecing up ends to eliminate tag filling from appearing in the cloth?"

Three or four different answers were made. It seems there are several good methods, and I would like to ask somebody to get up and explain their method of doing that, and what kind of results they got from it.

MR. EDWARDS: I didn't understand that. Does that mean ends of the filling?

MR. DENNIS: Where the end breaks down on the doffing, the best way to piece it up.

MR. EDWARDS: In piecing up on the regular filling, you put that thread over and piece it up.

MR. DENNIS: You do it on the bobbin?

MR. EDWARDS: Under the bobbin.

MR. DENNIS: Two methods have been described, which seem to be the two favorite methods. Has somebody else any other method that they will describe? One answer is "Piece up from the roll to the bobbin." I don't know whether the question was misunderstood or not, but if that is a method, I would like to have that explained.

MR. QUINN: Some of the mills go to work and thread the traveler, wrap it around the spindle, and put the bobbin on and get a bunch on their bobbin. They used to use that bobbin with a bunch on it. They found out from the other way they could get results quicker. Quite a few mills do that. Just twist the ends.

MR. DENNIS: I don't think that covers the way I understand this answer. I don't know whether I understand this answer or not. It is customary in piecing filling to piece up from the roll to the bobbin. As I say, I don't know whether I understand this answer to be that way on the spinning or not. Can anybody else help us out on this question? It seems that there is no further discussion on this question; so we will pass on to the next question, which is:

"What is the best method for keeping numbers separated in a mill?"

Has anybody got a good system for that?

Marking Bobbins.

A member: I have each one of my spools marked for separate numbers. Then I have my doffers to mark each number with a different color of chalk. I have the spoolers instructed as to what the yarn is to be marked. I don't mark my bobbins in the spinning room. I have the doffer to mark his yarn, say, 14s pink, 12s blue, and so on. That is his instructiton. By that means I don't have any trouble at all in keeping my numbers separated. I have very little mixed yarn and seldom have any. If we have

got to put in a new number, I select some mark, and have the spools painted before I put them in use. Then I will give the second hand in the spinning room instructtions and tell him what color I want it marked.

I have the spool hands instructed what color it is to be.

Color System.

Mr. Fagan, Piedmont, Ala.: We use the color system. We paint every bobbin, 50s red, 60s green, 40s yellow. All bobbins are painted, all spools. If a card room boy finds a bobbin on the floor, he knows what number it is.

MR. DENNIS: You carry the same color scheme all the way through?

MR. FAGAN: Yes, sir.

JOHN H. HOWARTH, West Point: On filling too?

MR. FAGAN: Yes, sir.

MR. HOWARTH: I carry about 16 or 18 kinds of filling. I would hate to paint all my quills.

Question: Your doffers will mix bobbins once in a while?

MR. FAGAN: No, sir; absolutely not.

A MEMBER: Well, the doffers are to be congratulated or you, one. I have never been in a mill yet where they didn't mix them occasionally.

MR. FAGAN: We offer one dollar reward for any mixed bobbin.

MR. DENNIS: In Mr. Howarth's case there I think he has a great many different numbers, and has to change back and forth.

MR. EDWARDS: I have the same system as the gentleman back there, only we carry it further, and go back to the card room. Let this gentleman come up to my place, and I will show him a room that there is no mixed bobbins in. Every bobbin is painted, and we carry seven or eight numbers. Most men think that the cost is exorbitant, but it is not. The doffers don't do any marking at all. Everybody knows that a certain color of spool calls for a certain number of yarn. That roving is all the same color, and it can't get mixed. I am in a duck mill, and if anyone is interested, I would like for him to come and look over the job. Of course it requires constant watching on the part of everybody, and everybody has got to know that it must not be mixed.

MR. DENNIS: Don't you have to carry a larger stock of bobbins on hand?

MR. EDWARDS: Yes, sir, but it is money saved in the long run.

JOHN H. HOWARTH, West Point: Where you have got to carry as many quills as I would have to carry, you would have trouble.

Question: Is that the only marking you do?

MR. EDWARDS: Yes.

Question: How do you tell what frame makes the bad work, when it is made?

MR. EDWARDS: We have different colors for check. The check mark designates the man that makes the work.

MR. McCAULEY, Piedmont, Ala.: We have the color system. From time to time we have changed the color system. We have a ticket for the different numbers, about four inches long and one and a half inches wide that we place on every size yarn, showing the number of the yarn and most of the time the time it was doffed. That ticket follows that to the spooler. If the spooler has a bad size, he refers that right back; inside of two hours we have located it.

As to the color system, when we first started, we chalked the whole end of the spooler solid red or green, and we found we had to change quite often, and now we just put the mark on both ends. If we have to paint them over, we just paint over that green spot. We have carried that on for fifteen years or more, and we have had very little mixed yarns. As to this color system, we have to carry an immense stock of bobbins. As the gentleman here says, we have tried the crayon method too. In order to keep from getting these things mixed, you have got to mark them from one end to the other. If you use the color system, you are sure of it.

I am a visitor here, and any time you are down at Piedmont, I would be glad to have you go through our mill.

MR. DENNIS: Mr. Howarth wanted somebody to tell us about their experience, who has a similar condition to his, where he has fairly coarse numbers and lots of them. Can anybody help him out on that? I think that would give us a contrast between the finer numbers and the way to handle coarse numbers.

MR. HOWARTH: It looks to me as if I would have to have a forest made into quills, if I could practically adopt it. I was trying to estimate how many million I would have to get to do it. I like it very well, If I could have them all painted I would have to use every color that anybody could think of except black.

MR. EDWARDS: I have to repaint my bobbins about every five months.

G .A.. FRANKLIN, Augusta: We have got a plant like Mr. Howarth's. We run coarse numbers, and we haev to change every three hours or so, and we run on all sorts of cloth. I feel like it wuld be almost impracticable for our plants to attempt to buy enough different colored bobbins to run the color system unless we could run along on the same numbers all the time. With ten to fifteen numbers, and running on those regularly, I could see how we could do it, but God bless your soul I don't see how we could do it as we are situated.

MR. HOWARTH: That's just the point exactly. I would have to have enough quills to cover everything, or it wouldn't be worth while.

MR. DENNIS: I am sure we all realize that the local conditions have got almost everything to do with the system we adopt. It has got to be adapted to local conditions, and what I might get by with might ruin somebody else.

MR. FAGAN, Piedmont, Ala.: We

have from ten to fifteen colors, and probably eighteen sometimes. We don't do any weaving, and it is very easy for us to keep up with the bobbins.

I want to thank this organization for the invitation extended to attend this meeting. I would like to become a member some day. I thank you for your courtesy. I will have to bid you goodby, as I have got to catch my train. If you ever come over to Piedmont, come and see us. I thank you.

MR. DENNIS: We will pass to the next question.

W. W. ARNOLD Jr. General Chairman: At this point I wish to state that we will have our Fall meeting on Slashing and Weaving in Atlanta in September. The exact place here and the date will be decided upon later, and you will all have notice. Excuse me for interrupting you Mr. Dennis.

Worn Whirls.

MR. DENNIS: The next question, gentlemen, is:

"What do you do when the whirls become worn and vary in size"?

Is it good practice to renew those spindles, put them in at random, or handle them very much the same way as we do our rings? That was the main idea the Committe wanted to convey in asking this question. Can anybody help us out on this?

D. G. REID, Hogansville: Put in a new frame of spindles, and keep the old ones for replacement.

MR. QUINN, Atlanta: Put in a same sized whirls. Repair with the new frame of spindles with the old ones. Just as you take a whole new frame of rings, and repair with the old rings. That is the way most of the mills do, and they get pretty goods results.

MR. DENNIS: Has anybody else any other plan, that he thinks is good? How many think that is the best way? (Most of those present). I think it is generally coneceded that we should put in new spindles very much the same way we put in new rings.

The next and last question is:

"Is it good practice to exchange front steel rolls from right hand to left hand frames, and vice versa, after the flutes have become worn"?

The question is misstated in that it is meant that sides are changed on the spinning frame rather than changed from right to left hand frames. It is good practice to change those from one side to another, or from right hand to left hand? Can anybody answer that for us?

MR. QUINN, Atlanta: I have known some mills to do that. You have got to have them in pretty good shape. If you don't, they will work loose. You take a roll that has been running one way ten to fifteen years, and the flutes will wear out smooth on side. If you reverse, you have to have new necks or it will give you trouble.

MR. DENNIS: You mean it is a good idea to re-neck them when you are changing?

MR. QUINN: Yes.

A MEMBER: I am changing mine now. The frames have been running nine years this Spring. The flutes are obiged to have become worn. If you change to the left hand side, you have got to watch your necks. If I have a neck worn out, I have it re-necked or replace it. I have not only tried it out here but at other places.

MR. DENNIS: Does anybody object to it? There is a pretty nearly equal division of opinion in these answers.

D. G. REID, Hogansville: You have got to watch those necks. If you have got to go to the expense of re-necking them, buy new rollers.

MR. DENNIS: That, gentlemen, closes the discussion. We can devote a few minutes to any question of general interest, that anybody would like to ask.

True Running Bobbins.

Question: Is anybody having trouble in getting true running bobbins?

W. W. ARNOLD Jr. General Chairman: Does he mean whether they are having trouble in getting true running bobbins or getting any true running bobbins? (Laughter).

MR. DENNIS: If there are no further questions of general interest, gentlemen, that concludes our discussion.

W. W. ARNOLD Jr., General Chairman: We certainly appreciate the interest you have shown in the discussions. We have had quite a few visitors here today from other States, who have had entered into the discussions, and we appreciate that more than they will ever realize because the greatest benefit we derive from these meetings is having the other fellow's point in view.

If there are no further questions, we will ask you all to remember the meeting we will have in September, the date of which we will notify you later.

Robert W. PHILLIP, Atlanta: Any time you fellows have anything you want to get of your chest, and any time you have any questions to ask, write us. We have some pretty brainy men on this Executive Committee, and I think it would be in order for us to send out any such questions to them, and get opinions on them. If at any time between now and the next meeting you have any questions you want to bring up, be sure and let us have them, and we will see that you get somebody's opinion on them anyhow.

WILLIAM W. ARNOLD, Jr., General Chairman: If there is no further business to come before the meeting, gentlemen, we will stand adjourned.

Netherlands Large Textile Market

America's share of the $50,000,000 worth of cotton-piece goods imported annually into the Netherlands East Indies, one of the largest textile markets in the world, is but one-tenth of one per cent, according to Assistant Trade Commissioner George, Batavia, in a pamphlet just issued by the Department of Commerce.

Though the market is not an actively growing one, he points out, import statistics showing it to be substantially the same as pre-war, it is nevertheless, consistent, and worthy of the well-directed efforts of American exporters to secure a share in this particular trade. To date, however, obstacles in the way of development of American business, and which by proper attention may be overcome, are high prices, lack of intimate knowledge of sales methods and distribution facilities of the locality and native tastes. The drastic economic changes of the past few years, the report goes on to state, have settled themselves into an even export prosperity, a better balanced government budget, and lighter taxation on business Furthermore, with money plentiful in banks and no surplus stocks threatening the market, the piece-goods trade is revealing the desired steady turnover at good prices.

In the importation of unbleached cottons, the report indicates that Japan leads other nationals, Great Britain and the Netherlands following well behind. The Netherlands holds a safe lead in the bleached cotton trade, with Great Britain but a fair second, and Japan and Italy following in order in negligible quantities. The largest shipments of cottons, dyed, printed, or woven in colors, during 1924 came from Singapore (largely transshipments of English or British Indian origin) with direct exports from Netherlands and Great Britain sharing the balance, while in the exportation to the Netherlands East Indies of other cottons dyed, printed, or woven in colors, Japan led the field with a safe margin over Great Britain. Italy and the Netherlands were the only other countries to register conspicuous shipments of this classification.

Grey supers from Great Britain and Japan, constitute by far the most important grey goods in the trade, the pamphlet shows ,while cambrics furnish the principal single line of textiles. In the latter instance, The Netherlands is dominating the import market; though much of the shipments from this source originate in Great Britain and find their way to the superior finishing facilities of the Dutch, whence they are exported to the Netherlands East Indies.

The stagnant condition of business during the recent years has affected the purchasing power of the natives, Mr. George reflects, and as a consequence a preference for cheaper-priced goods is evident. Low-grade cambrics are bought at the expense of better qualities, while supers are seen displacing the low-grade fabrics.

In an interesting description of selling methods, the pamphlet shows that the dealers and interior distributors of piece-goods are largely Chinese and Arabs, and whereas business was formerly carried out on an indent basis, this system has given way to one of stock-carrying on the importer's part, applying principally to greys, supers, cambrics, shirtings, and similar standard materials, in this there is very little risk to the importer on account of style changes and the caprices incident to a market of very fluctuating buying power.

"The weakest selling point of American cotton cloth is its price; the goods land in this market at a considerably higher cost than that of similar European products, and the market can not pay the difference," says Mr. George's report. "It is possible to find a limited outlet with the few beg department stores, and similar establishments catering to the European and better-class Chinese trade, but this business is insignificant compared with the immense turnover in merchandise taken by the natives. In other words big business can be done in the Netherlands East Indies only in cheap goods."

Yarn-dyed goods offer the best opportunity for the American trade, the pamphlet concludes, and an expert study of native weaving and batik designs is the necessary step to compete successfully in the large and properous business being done in woven-colored sarongs, kains, slendangs, and kapellas, a business now more or less dominated by the English and Dutch.

Dyeing and Finishing During 1923

Washington, March 18.—According to data collected by the Bureau of the Census at the biennial census of manufacturers, 1923, and made public today, the establishments engaged primarily in dyeing and finishing textiles reported products valued at $342,229,850, an increase of 23.7 per cent as compared with 1921, the last preceding census year.

"In addition," says the report, "the dyeing and finishing of textiles are carried on to a considerable extent by textile mills, but in most cases such mills did not make separate reports for their dyeing and finishing departments. Most of the work done in this industry is performed on a contract or commission basis, so that value of products represents, in the main, the amount charged for performing the dyeing and finishing processes, and the cost of materials is made up chiefly of the cost of chemicals and dyestuffs.

"Of the 713 establishments reporting for 1923, 178 were located in New York, 160 in Pennsylvania, 146 in New Jersey, 75 in Massachusetts, 63 in Rhode Island, 16 each in Connecticut and Illinois; eight in North Carolina, seven in Maryland, six in Ohio, four each in California, Missouri, and South Carolina, and the remaining 26 in 16 other States.

Attendance at Georgia Meeting.

(Continued from Page 12)

Pope, J. W., Rep., A. E. Staley Mfg. Co.
Pratt, Walter B., Sou. Agt., Jos. Sykes Bros., Charlotte, N. C.
Pulliam, L. O., Salesman, Bahnson Co., Winston-Salem, N. C.
Reynolds, W. M., Asst. Supt., Newnan Cotton Mills, Newnan, Ga.
Rice, L. H., Supt., Manchester Cotton Mills, Manchester, Ga.
Roberts, Jno. S., Pres., Ga. Webbing & Tape Co., Columbus, Ga.
Roseberry, W. P., Carder, Scottdale Mills, Scottdale, Ga.
Rowell, J. Kirk, Kron Scale Co., Atlanta, Ga.
Runge, H. E., Draper Corp., Atlanta, Ga.
Sanford, R. L., Hillside Cotton Mills, LaGrange, Ga.
Scales, C. H., Designer, Griffin Mfg. Co., Griffin, Ga.
Scales, L. L., Cost Accountant, Fairfax Mill, Fairfax, Ala.
Senn, D. R., Asst. Supt., Enterprise Mfg. Co., Augusta, Ga.
Seydel, Paul, Pres. Seydel-Thomas Co., Atlanta, Ga.
Sibley, A. D., Student, Ga, School of Technology, Atlanta, Ga.
Sibley, Wm. A. L., Apprentice, Whitney Mfg. Co., Whitney, S. C.
Simpson, W. J., Carder & Spinner, LaFayette Mills.
Singleterry, C. A., Carder, Stark Mills, Hogansville, Ga.
Smith, O. W., Spinner, Trion Co., Trion, Ga.
Snow, Geo. B., Supt., Atlanta Brush Co., Atlanta, Ga.
Spencer, J. H., Barber-Colman Co., Greenville, S. C.
Stelle, R. S., Supt LaFayette Cotton Mills, LaFayette, Ga.
Stodghill, C. M., Atlanta, Ga.
Stone, M. C., Asst. Supt., Pacolet Mfg. Co., New Holland, Ga.
St. Onge, A., Brown-St. One Co., Providence, R. I.
Taylor, C. D., Sou. Agt., National Ring Traveler Co., Providence, R. I.
Thomason, L. W., N. Y. & N. J. Lubricant Co., Charlotte, N. C.
Thomason, W. R., Supt., Palmetto Cotton Mills, Palmetto, Ga.
Thompson, C. P., Trion Co., Trion, Ga.
Thompson, V. J., Carder, Manchester Cotton Mills, Manchester, Ga.
Thrower, S. M. Overseer Spinning, Dixie Cotton Mills, LaGrange, Ga.
Todd, A. J., O-Carding, Unity Cotton Mills, LaGrange, Ga.
Turner, Jno. C., Sou. Sales Rep., Chas. Bond Co.
Quinn, Peter D., Draper Corp., Atlanta, Ga.
Wainwright, O. C., Ex-Mgr., Stonewall Cotton Mills.
Wainwright, T. L., Ex-Pres., Stonewall Cotton Mills.
Ward, J. L., Overseer, Enterprise Mfg. Co., Enterprise, Ga.
Widdup, W. R., Salesman, Andrews Loom Harness Co., Spartanburg, S.C.
Williams, F. B., Asst. Supt., Fairfax Mill, Fairfax, Ala.
Wisner, C. E., Supt., Scottdale Mills, Scottdale, Ga.
Wood, D. M., Newnan Cotton Mill, Newnan, Ga.
Woodyard, H. T., O-Carding, Concolidated Textile Corp.
Wooley, Jr., Vasser, Seydel-Thomas Co., Atlanta, Ga.
Wooten, L. E., V-Pres., Lestershire Spool & Mfg. Co., Charlotte, N. C.
Young, C. M., Treas., Ga. Webbing & Tape Co., Columbus, Ga.

North Carolina Mills Prefer Commission Selling

MUCH has been written of the growth of the textile industry in North Carolina. The extent of this expansion is usually measured in terms of new mills, more spindle hours, and increased output. A question naturally arises as to whether this implies also increased selling activity on the part of North Carolina concerns or whether relinace is placed wholy upon well established agencies operating in New York, Philadelphia and elsewhere. North Carolina Commerce and Industry has just completed a survey which shows in a general way how the state's textile products are marketed.

Dominance of Selling Agent

A majority of the textile enterprises still sell through selling agents, as they have for years past. The reasons for this practice are various. (1) In a number of instances the selling house is an affiliated company or financially interested in the mill. In some cases both mills and financial agencies have been organized by the same individuals. Under these conditions the reasons for selling through the agency are obvious.

(2) Where the mill manufactures a staple product, generally classified as "Southern cotton cloth," it seeks a broad general market which can be effectively reached only through a powerful selling organization. As one mill puts it: "Our lines are sold all over the country to a large numbers of customers, each one of whom buys but a small percentage of the product. To sell our output direct would require a considerable force of very competent salesmen, who find themselves of the highest type. Furthermore, we would have to maintain a very effective credit organization for our one plant. By selling through the commission house the same sales force and credit department handle the product of a considerable number of mills.

Agents Designing Services

Another company pionts out that the designing services of the commission house make it economical to employ them. "In our print works our designs are furnished either through the selling agent or through the customer, who smoetimes employs his own artist to prepare the design. Our sales house, however, employs experts who are qualified and ready to help the mills they represent, not only with the designs of various fabrics but also on what is known as the construction of the fabric." Thus in various ways the employment of a selling agent means a reduction in over head costs.

Connections of Selling House

(3) Another reason advanced is house has domestic and foreign connections in the important centers

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Cost of Making 22s Yarn From Single and From Double Roving

(Continued from Page 9)

because it is specially designed for speed and economy. The production of one of these winders is about 100 yards per spindle per minute, allowing for breakage and stoppage. The production in pounds would be 19.5 per week per spindle. The production from spinning frames is 19,244 pounds. This divided 19.5 pounds will give 98 spindles, necessary to take care of the yarn. This will require 16 winder of spindles.

The two extra spindles will be taken care of because we allowed a minimum production.

This machine takes up a floor space of 4' 8" x 1' 9".

The machinery cost is as follows:

2	Pickers	$ 3,100
2	Intermediates	3,100
2	Finishers	3,100
24	40' Revolving Top Flat Cards at $600	28,800
42	Deliveries of Drawing at $77	6,268
178	Slubber Spindles at $15 per sp.	5,340
630	Intermediates at $15 per sp.	14,300
2316	Roving Spindles at $7 per sp.	32,424
9948	Spindles on Spinning Frames at $3.25	64,896
2	40" Traverse Grinders for Cylinder and Doffer	130
1	40" Drum Grinder for Flats	80
1	40" Stripping	44
1	40" Burnishing Roll	44
16	Winders at $150 each	2,800
	Total	$138,416

Machinery for a 10,000-spindle mill making 22s warp from single roving.

Draft	Machine	Wt. or Hank
7½	Spinning	22
4½	Roving	2.95
4.4	Intermediate	1.31
4	Slubber	.6
6	Drawing	55.5 grains
6	Drawing	55.5 grains
90	Cards	55.5 grains
4	Finishing Picker	12.6 ounces

Amount of Machinery To Use.

The number of spinning frames is 48, the same as for double roving; 19,344 pounds must come from the roving frames to supply enough roving for the spinning frames, allowing two per cent excess for waste. The production of one spindle making 2.9 pounds per day, or 17.4 pounds per week, using 136 spindles to each frame it will require eight frames.

Allowing 4 per cent more than spun for waste and excess there must be a total of 19,675 pounds produced by the intermediate per week. The production of one spindle is six and seven-eighths per day or forty and sixty-eight hundredths pound per week, so it will require 496 spindles to produce same. Using 102 spindles per frame it will require five frames.

The amount to be produced by the slubber is 20,540 pounds per week, allowing 6 per cent for waste and excess. Each spindle produces 115.34 pounds per week and it will require 178 spindles. The frames are made in 60 spindle sizes, so it will require three frames. Allowing 10 per cent for waste and excess, the amount to be delivered from the drawing frame is 21,728 pounds per week, each drawing head delivers 165 pounds per day or 990 pounds per week.

It will require 12 deliveries or three frames of six deliveries and one frame of four. Using two sets of drawings it will require the same equipment for both. Allowing 15 per cent more for the cards than is necessary for the drawing the cards must produce 22,869 pounds per week. The production per card is 870 pounds per week, therefore it will require 27 cards. Allowing 15 per cent more production on the pickers than is necessary for the cards, it will require 26,290 pounds per week. It will require two sets of pickers to furnish this cotton, each set consisting of a breaker, spinning, intermediate and finisher.

The same number of winders are used for both mills.

The machinery cost is as follows:

2	Pickers	$ 3,100
2	Intermediates	3,100
2	Finishers	3,100
24	40" Revolving Top Flat Cards at $600	28,800
42	Deliveries of Drawing at $77	6,268
178	Slubber Spindles at $15 per sp.	5,340
510	Intermediate Spindles at $15 per sp.	15,300
1088	Spindles Roving at $7 per sp.	15,192
9948	Spindles on Spinning Frame at 3.25 per sp.	64,886
2	40" Traverse Grinders for Cylinder and Doffer	300
1	40" Drum Grinder for Flats	80
1	40" Stripping Roll	44
1	40" Burnishing Roll	44
16	Winders at $150 each	4,800
	Total	$120,444

The difference in the cost of the machinery is $18,972 in favor of the roving mill.

The next thing, which is one of the most important in mill construction, is the floor space for each mill. This is best done by taking each department separately.

First take the double roving mill and begin with the picker room which contains six machines. For the best arrangement it will take about 450 square feet per machine, which will amount to 2,700 square feet. For cards the average floor space per machine is between 100 and 160 square feet. The average is 130 square feet, or a total of 130x24 equal 3,120 square feet. In the space for drawing, much care must be taken not to place the machines too close together, and to leave room for the cans, which are hard to keep placed so as to take up the minimum space. The best arrangement is 25 square feet per delivery, or 25x42 equal to 1,050 square feet.

Although there is no more room around the slubbers and intermediates, we will consider them all as speeders and take the average floor space per spindle. A good average is 23 square feet (178+6.50+2316) x 2.3 equals 7231.2 sq. ft. total space.

The spinning frames will occupy about 1 square feet per spindle a total of 9,948 square feet.

The winders will take near 2.6 square feet per spindle or total space of 249.6 square feet.

For the single roving mill all of the space will be the same but the speeder (178+510+1088) x 2.3 or 4084.8 square feet.

Space Table Double Roving.

Name	Total Space Square Feet
6 Pickers, 450 sq. ft. each	2,700
24 Carders, 130 sq. ft. each	3,020
22 Drawing Deliveries, 25 sq. ft. each	1,050
Speeders, 3,144 spindles, 2.3 sq. ft. each	2,230.2
Spinning Frames, 9,948 spindles sq. ft. each	9,948
Winders, 96 spindles, 2.6 sq. ft.	349.6
Total	24,298.8

Space Table Single Roving.

Name	Total Space Square Feet
6 Pickers, 450 sq. ft. each	2,700
24 Carders, 130 sq. ft. each	3,120
22 Drawing Deliveries, 25 sq. ft. each	1,050
Speeders, 1,766 spindles, 2.3 sq. ft. each	4,161.8
Spinning Frame, 9,948 spindles, 1 sq. ft. each	9,948
Winders, 96 spindles, 2.6 sq. ft. each	249.6
Total	21,229.4

The difference in the floor space of the two mills is 3,069.4 square feet. In the construction of a standard mill it has been found the cost per square foot, including cost of iron used, etc., is about 74 cents. 74 cents x 3,069.4 equal $2,275.38. By adding this to the difference in cost of machinery, we will get the total cost to be $21,247.38.

National Association Meeting

Announcement is made that in connection with the Spring meeting of the National Association of Cotton Manufacturers, which is to be held in Washington on April 6, 7 and 8, a conference has been arranged with the trade representatives of foreign governments now in Washington. This feature of the meeting is expected to have a significient and far reaching effect, for it will give an opportunity to American manufacturers, many of whom in this instance will come from New England, to learn at first hand exact trade conditions as they exist at present in many foreign lands.

The conference now announced will be held at the Bureau of Foreign and Domestic Commerce on Tuesday afternoon, April 7, and will be addressed by Herbet Hoover secretary of the Department of Commerce, as well as by some of the foreign trade representatives. Edward T. Pickard, chief of the Bureau, who has co-operated in the arrangements for the event in a substantial manner, will preside. At the close of the speaking, groups of members of the National Association will meet the men fro mforeign countries for a discussion of trade conditions in their respective sections. Heads of various departments of the United States government will also attend the conference.

Arrangements for the trip of the members of the National Association will meet the men from foreign train leaving Boston at 7:30 Sunday evening, April 5, have been practically completed, and the Spring meeting looms up as an important gathering in American industrial life.

Russia Using More American Cotton.

Washington, D. C.—American cotton exported to Soviet Russia during the past year was valued at $38,000,000, according to figures compiled here. Most of the cotton was exported by the All-Russian Textile Syndicate and the Amtorg Trading Corporation, both of New York.

Although the cotton crop in Russia increased 600 per cent in the last two years, the home-grown crop last year was sufficient to supply only about one-third of the needs of the rapidly expanding textile industry.

N. C. Mills Prefer Commission Selling.

(Continued from Page 47)

and the general good will of the trade. This makes it difficult for a company to market goods in competition and indeed proves a facility which the mill is very well satisfied to employ.

(4) Again, the services of the selling house as a commercial banker are indispensable to many mills. As well known, it is common practice for the selling house to guarantee accounts and to make advances against the mill's invoices. One selling house, for example, credits the mills with invoices as of the date of shipment, discounting them at 5 per cent. On the other hand, they allow 6 per cent on all balances carried by the mill. As an additional service, some of the larger agencies will, when requested, advance funds against unsold stocks held at the mill. Clearly, then, unless the mills has ample working capital it is far safer to employ one of the large selling agents and pay them a 5 per cent commission on sales.

Location of Selling Agent.

(5) Finally, it should be noted that the selling houses are located in the old established markets. For decades New York has been the central market for textile fabrics in the United States. Moreover, it is the center of the clothing industry. Dry goods manufacturers of Philadelphia, which is also a considerable market center, recently complained that most of their goods were sold in New York. The great selling agencies which maintain head offices on Worth Street, New York, also maintain branches i nthe other important centers in the United States and abroad. The force of this marketing organization is certainly to be reckoned with by a local concern which undertakes to market direct.

Some Mills Sell Direct.

A prominent member of the trade says that personally he does not know of half a dozen cloth mills in the state which undertake to sell their product direct. Usually when a company states that they market direct "through our own organization" the fact develops that they are part of a large organization controlling several mills. One management, for example, controls a dozen mills in North Carolina and maintains a selling agency at Philadelphia, Boston, New York, Chicago, Chattanoogo, and Gastonia. Furthermore, their product is more in the nature of a specialty which is sold in a comparatively restricted market.

Reasons for Selling Direct.

One concern which sells part of its output direct gives these reasons: (1) We come into direct contact with our customers. (2) We can get a better price. (3) We get a broader distribution. (4) We build a reputation for our own goods. "We would prefer the direct method of selling," they say, "provided we were able to extend the necessary credits." They would not advocate this policy for mills making fancy goods because of the expense of styling and they admit that it is practically impossible for many companies which manufacture staple yarns and cloths.

Selling Direct is Small.

In summary, the percentage of North Carolina cotton textile manufacturers who market their own products is so small as to be an exception to the general practice. Some of these concerns say that they have noted "a tendency towards marketing direct because to eliminate the middleman means a definite saving. Yet this is generally denied.

Because of the strength of an established marketing organization, because of apparent economies in overhead cost, and because of the financial services offered, North Carolina textile products will probably be marketed through selling agents for many years to come.—Edmund Brown, Jr.

Knitting Arts Exhibition

For five days from April 6 to 10 inclusive Commercial Museum in Philadelphia will be the scene of what has been aptly termed "The Celebration of a Majority". The Knitting Arts Exhibition has become of age. This year will be the twenty-first exhibition and therefore will be significant in the life of the knitting and textile trades.

General Manager Chester I Campbell has worked especially hard this year to make the exhibition surpass anything that has been done in the past. His efforts have been richly rewarded and the thousands of visitors from all parts of the country who will attend this years show will realize what tremendous strides have been made in the Knitting and Textile fields during the past year and what still more wonderful things are promised for the future.

The number of exhibitors this year is far in excess of any other year. This fact in itself is an indication of the place that this exhibition occupies in the trades. Plans for displays by the many exhibitors are ambitious and elaborate and shows what a strong effort is being made by them to get the most out of their biggest opportunity of the year. Additional and finer exhibits, a broader and more interesting program for the convention of the National Association of Hosiery and Underwear Manufacturers, and interesting entertainment program are only a few of the ways in which this special period in the life of the Exhibition will be observed.

Clark's Cotton Records

Statistics Week Ending March 21, 1925.

	1925.	1924.	1923.
Visible supply American	3,878,000	2,344,000	2,281,000
Into sight during week	199,000	89,000	124,000
Mill takings during week	342,000	150,000	236,000
Mill takings since Aug. 1st	10,233,000	8,324,000	9,383,000
Exports during week	209,000	73,000	91,000
Exports since Aug. 1st	6,646,000	4,449,000	3,778,000
Government Reports.			
Acreage this season	40,403,000	38,709,000	34,016,000
Indicated crop July 25	12,144,000	11,412,000	11,065,000
Indicated crop middle of July	11,934,000		
Indicated crop end of July	12,351,000	11,516,000	11,449,000
Indicated crop middle of Aug.	12,956,000		
Indicated crop end of Aug.	12,787,000	10,788,000	10,575,000
Indicated crop middle of Sept.	12,596,000		
Indicated crop end of Sept.	12,499,000	11,015,000	10,135,000
Indicated crop middle of Oct.	12,675,000		
Indicated crop end of Oct.	12,816,000		
Indicated crop middle of Nov.	12,992,000		
Indicated crop end of Nov.	13,153,000		
Ginned to Oct. 1st	4,527,671		
Ginned to Oct. 18th	7,600,826	6,415,145	6,078,321
Ginned to Nov. 14th	11,163,400		
Ginned to Dec. 1st	12,225,000		
Ginned to Jan. 16, 1925	13,308,037		
Ginned to March 20 (final report)	13,618,751		
Carryover beginning of cotton year	2,319,000	2,573,000	4,879,000

Cotton Exports.

Following is a comparison of the exports by months in running bales, including linters:

	1924.	1923.	1922.
August	277,641	244,415	272,808
September	737,010	689,435	378,390
October	947,556	781,722	798,664
November	1,306,000	770,002	858,337
December	1,076,000	845,581	607,853
January, 1925	1,076,000	546,253	473,436
February, 1925	81,838	482,146	359,657
March		332,168	318,210
April		320,774	259,984
May		326,357	160,368
June		230,979	214,851
July		211,633	171,469
		5,772,000	4,864,027

American Consumption of All Kinds of Cotton, Excluding Linters.

(In running bales, 000s omitted.)

	1924-25		1923-24		1922-24	
	Per Month	Per Season	Per Month	Per Season	Per Month	Per Season
August	357	357	492	492	526	526
September	435	793	484	975	494	1,020
October	530	1,322	542	1,517	534	1,554
November	492	1,814	532	2,049	579	2,133
December	533	2,347	462	2,510	529	2,663
January 3	589	2,924	577	3,088	610	3,273
February, 1925	550	3,324	508	3,595	567	3,840
March			484	4,079	624	4,464
April			480	4,559	577	5,041
May			414	4,991	621	5,661
June			350	5,341	542	6,203
July			347	5,688	463	6,666

Cotton Goods

New York.—Trading in the cotton goods markets continued fairly active during the past week. The continued strength of the raw cotton market kept prices on goods firm. Buying was about of the same volume as during the week previous. Large users of print cloths showed some interest in June and July delivery and some fair business was done for April shipment. Sheetings were rather quiet as were drills, some sales of the latter for spot delivery being made at an eighth cent under recent figures.

The demand for wash goods was strong especially for the novelty lines that cannot be had for quick shipment. Some of the more popular rayon mixtures are now from thirty to sixty days ahead, with buyers anxious to get them quicker. There was a strong call for bordered voiles in large dots and figures and the high lustre goods that resemble fine mohair tissues. The more staple wash goods were not very active.

A number of bleachers reported a very good business for the week, especially in colored goods for nearby delivery. Bright colored prints on combed yarn foundation cloths were in good demand and the English print effects proved popular with the buyers.

Orders for a considerable quantity of tire fabrics were reported durthe week. Tire makers are reported to need only filling in lots to finish out the second quarter of the year, while some mills have placed orders for their full requirements for the third quarter.

The best demand for duck was for the heavier constructions. Contracts were placed calling for delivery as far ahead as sixty days. Prices showed little change.

The market for silk and cotton mixtures was strong. The best demand was for crepes for quick delivery. Several mills were reported as holding two end crepes, 80x96 at 45 cents, although some sales were reported at 44½ cents.

Many centers find that broadcloth interest has slackened somewhat. There is a demand for spots of the popular numbers, but it is neither as general nor as insistent as it had been up to recently. Discussing broadcloths, various observers point out that the siuation must be gauged in the light of recent experience. There has been good business in certain styles right along, with numbers like 100x60 and 100x64 moving in large volume. In these two instances, most mills are sold up to June, and the production involved runs into sustantial volume. It is not to be expected that the action in these numbers could keep up to the recent high average indefinitely although the way interest was maintained has been surprising to many. The situation of most interest right now is that of the 128x68 all combed. From all reports, this number has hot been measuring up to the recent volume of the Southern carded styles, with the chief interest apparently restricted to spots and nearby. The trade's attitude toward 128x68 as regards fall business is being closely watched. Right now the market for deliveries of 128x68 is generally considered one open to trading, providing the volume is important enuogh.

Cotton prices were as follows:
Print cloths, 28-inches, 64x64s 7⅞.
Print cloths, 28-inches, 64x64s 7⅞.
Print cloths, 27-inches, 64x60s 7
Gray goods, 38½-inches, 64x64s 10⅛.
Gray goods, 39-inches, 68x72s 11⅝.
Gray goods, 39-inches, 80x80s 13¾
Brown shetings 3-yard 11¾. Brown sheetings, 4-yard 11¾. Brown sheetings, standard 15½. Ticking, 8-ounce 26. Denims 20. Staple ginghams, 27-inches 11½. Kid finished cambrics 9½a 10½ 10. Dress ginghams 18½a 21 18¼. Standard prints 9½.

New Du Pont Vat Blue.

The dyestuff department of E. I. du Pont de Nemours & Co., announces the development of a new vat blue which is known as Ponsol Brilliant Blue R Paste.

This dyestuff, developed since the war by a European manufacturer, has not heretofore been produced by American company.

This offering adds one more member to the series of these colors which the du Pont Company has been developing. It is stated that the new vat bule is similar to Ponsol Blue RS Paste and somewhat redder and brighter. Being the brightest vat blue of reddish cast on the market it can be used for all purposes where Ponsol Blue RS Paste has been employed. It has the further advantage of being considerably faster to chlorine.

It will be used chiefly on cotton, though it is also suitable for dyeing artificial silk and may be applied on pure silk by the bicarbonate method.

The Yarn Market

Philadelphia, Pa.—While general conditions in the yarn market continued to show improvement during the week, sales were not large, although the total amount of business done during the past three weeks makes a very good showing. Spinners continued to hold prices very firm and were not as willing to take concessions as some of them were a few weeks ago. The firmer cotton market continued as a favorable factor and reports that Southern mills were buying cotton heavily served to stablize the market.

Many of the most popular counts of yarns are reported as being scarce and hard to secure for prompt shipment. Stocks are low in this market and at the mills. Both knitting and weaving mills showed more interest in their yarn requirements during the week and many merchants are expecting a much better buying movement within a short time.

Spinners seem convinced that higher prices are coming and are much more encouraged over the outlook. While only a limited amount of business is passing at present, it is believed that buyers who have so long operated on a hand to mouth basis will soon be forced to buy in larger quantities. Mills are apparently aware of the overproduction and seem certain to regulate their production in accordance with orders actually booked. Mills that have recently bought cotton heavily by the fact that they have recently booked fair orders.

Quotations held firm at the advance of the previous week. They were published in this market as follows:

Southern Two-Ply Chain Warps.

2-ply 8s	40	a__	2-ply 26s	48	a49
2-ply 10s	41	a__	2-ply 30s	50	a52
2-ply 16s	43½	a44	2-ply 40s	60	a62
2-ply 20s	45	a46	2-ply 50s	66	a68
2-ply 24s	47½	a48			

Southern Two-Ply Skeins.

8s	40	a__	40s	58	a59
10s to 12s	41	a42	40s ex.	62	a63
14s	42	a43	50s	68	a__
16s	43	a44	60s	74	a76
20s	45	a45½	Tinged Carpet—		
24s	47½	a__	3 and 4-ply	37	a38
26s	48	a49	White Carpet—		
30s	50	a51	3 and 4-ply	39	a40
36s	57	a__			

Part Waste Insulated Yarn.

6s, 1-ply	36	a__	12s, 2-ply	39	a40
8s, 2, 3 and 4-ply	37	a__	20s, 2-ply	44½	a45
			26s, 2-ply	48	a49
10s, 1-ply and 3-ply	38	a39	30s, 2-ply	50	a__

Duck Yarns.

3, 4 and 5-ply—			3, 4 and 5-ply—		
8s	40	a__	16s	44	a__
10s	41	a__	20s	45	a__
12s	42	a__			

Southern Single Chain Warps.

10s	41	a__	24s	47½	a48
12s	42	a__	26s	48	a49
14s	43	a__	30s	50	a52
16s	44	a__	40s	59	a62
20s	45	a__			

Southern Single Skeins.

6s to 8s	39	a__	20s	44	a44½
10s	40	a41	24s	47	a__
12s	41	a42	26s	48	a__
14s	42	a43	30s	50	a__
16s	43	a44			

Southern Frame Cones.

8s	29	a__	22s	43½	a__
10s	40½	a__	24s	44	a__
12s	41	a__	26s	45	a__
14s	41½	a__	28s	46	a47
16s	42	a__	30s	48	a49
18s	42½	a__	30s tying in	47	a__
20s	43	a__	40s	57	a28

Southern Combed Peeler Skeins, Etc.

2-ply 16s	56	a60	2-ply 50s	85	a__
2-ply 20s	58	a62	2-ply 60s	90	a__
2-ply 30s	65	a67	2-ply 70s	95	a1 00
2-ply 36s	68	a75	2-ply 80s	1 05	a1 10
2-ply 40s	75	a80			

Southern Combed Peeler Cones.

10s	50	a__	30s	60	a__
12s	51	a__	32s	62	a__
14s	52	a__	34s	64	a__
16s	52½	a__	36s	65	a__
18s	53	a__	38s	68	a__
20s	53½	a__	40s	70	a__
22s	54	a__	50s	75	a__
24s	54½	a__	60s	85	a__
26s	55	a__	70s	95	a__
28s	57	a__	80s	1 05	a__

Eastern Carded Peeler Thread—Twist Skeins.

20s, 2-ply	52	a__	36s, 2-ply	64	a__
22s, 2-ply	53	a__	40s, 2-ply	66	a__
24s, 2-ply	55	a__	45s, 2-ply	69	a__
30s, 2-ply	58	a__	50s, 2-up	74	a__

Eastern Carded Cones.

10s	47	a__	22s	53	a__
12s	48	a__	26s	55	a__
14s	49	a__	28s	57	a__
20s	52	a__	30s	59	a__

Yarn Spinners Bulletin.

The bulletin of the Southern Yarn Spinners Association says:

"The past week has shown material improvement in the yarn market. While there have been no purchases in large quantities, the aggregate purchases in small lots have been considerable. Consumers are still reluctant to anticipate their needs, buying only their actual requirements for 30 to 60 day periods. Prices are strong and spinners' asking prices at an advance over reported quotations.

"Frederick B. Macy & Company in a review of the market situation states as follows:

"There seems little question that values are bound for higher levels. Raw material prices cannot be ignored, and through higher cotton and cotton yarn prices may serve to reduce consumption of yarn and other cotton goods, this will probably be balanced by more curtailment both in the South and in the East."

From comments in varous trade papers it appears that the advice of the Southern Yarn Spinners Association to the spinners "to regulate their operations solely by the volume of orders" is having a stabilizing influence in Eastern markets."

Want Department

Wanted

Position as cloth room overseer. Am now employed as such but desire a change. Am experienced with ginghams, silk and cotton colored stripes, also several other classes of cotton goods. Can give the best of reference. Am married and strictly moral. "Cloth Room," care Bulletin.

Transmission Rope For Sale

975 feet of 1¼" transmission rope for sale at bargain. Rope new. Mill changed to electric power.

Address D. C.,
Care Southern Textile Bulletin.

Wanted

Two or three loom fixers on Crompton & Knowles Dobby Looms.

H. L. WOOD,
Burlington, N. C.

For Sale

Approximately 75,000 Sonoco paper tubes (not "Newtaper") brand new, never having been taken out of original cases, and one ton cone wrapping paper. Reason for selling, have discontinued making cone yarns. Bargain. Write

CAPPS MFG. CO.
Toccoa, Ga.

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They are lighter and stronger, made of perfect 3-ply Veneer Packing Case Shooks. A saving of 20 to 80 pounds in freight on every shipment because of extreme lightness. Stronger than inch boards, burglarproof, waterproof and clean. Write for prices and samples. Convincing prices—Quick service.
Wilts Veneer Co., Richmond, Va.

Wanted

Spindle Plumber. Must be first-class or don't apply. Pay 50 cents per hour. Jno. W. Ridenhour, P. O. Box 3, Albemarle, N. C.

WANTED

Position as overseer of Tire Fabric Weave Room. Either builder or cord fabric. Can give best of references from former employes. Address Fabric, care Southern Textile Bulletin.

Wanted

Second hand for carding department, night shift. Twenty Mason cards, three Kitson pickers, Providence fly frames. Apply to W. D. Lawson, Supt., Rhyne-Anderson Mills Co., Troy, N. C.

Experienced Accountant - Office Manager, with over ten years' service in auditing and keeping accounts and records for fine goods cotton mill desires connection with large corporation operating group of mills. Prepares monthly operating statement and balance sheet and capable of installing and supervising complete system of accounts. Pleasantly associated with present employer eight years, but capable of much larger responsibility. Absolutely sober, industrious and reliable. Invite full investigation. Address "100," care Southern Textile Bulletin.

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